JVC

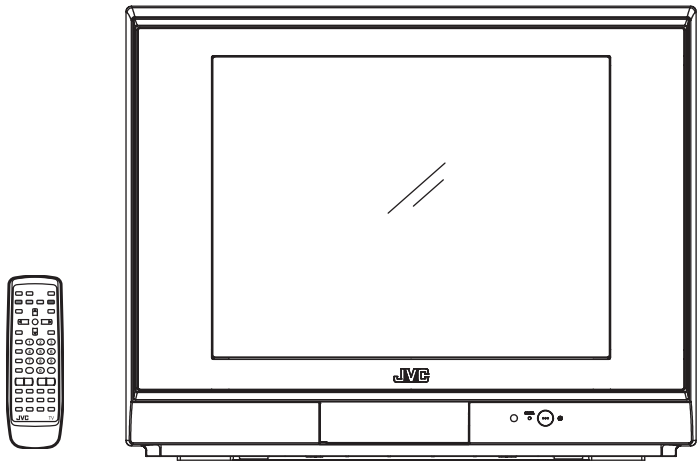
SERVICE MANUAL

COLOUR TELEVISION

AV-21BS26,
AV-21BX16/G,
AV-21BX16B/G

BASIC CHASSIS
CW3

InteriArt



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No.YA443
2006/8

SPECIFICATION

Items		Contents	
		AV-21BS26	AV-21BX16/G AV-21BX16B/G
Dimensions (W × H × D)		59.8 cm × 47.6 cm × 47.7 cm	
Mass		22.0 kg	
TV RF System		B, G, I, D, K, M	
Colour System		PAL / SECAM / NTSC 3.58 / NTSC 4.43	
Stereo System		A2 (B/G) / NICAM (B/G, I, D/K)	PB STEREO
Teletext System		FLOF (Fastext), WST (World Standard System)	---
Receiving Frequency	VHF Low	46.25MHz - 140.25MHz (AS0 - S6)	
	VHF High	147.25MHz - 423.25MHz (S7 - S36)	
	UHF	431.25MHz - 863.25MHz (S37 - C57)	
	CATV	Mid (X - Z+2, S1 - S10) / Super (S11 - S20) / Hyper (S21 - S41) bands	
Intermediate Frequency	VIF	38.0MHz (B, G, I, D, K, M)	
	SIF	32.26 MHz (5.74 MHz: B), 32.15MHz (5.85 MHz: G), 31.45 MHz (6.55 MHz: I) 31.75 MHz (6.5 MHz: D), 32.15MHz (5.85 MHz: K), 33.5MHz (4.5MHz : M)	
Colour Sub Carrier	PAL	4.43 MHz	
	SECAM	4.40625 MHz / 4.25 MHz	
	NTSC	3.58 MHz / 4.43 MHz	
Power Input		AC110 V - AC240 V, 50 Hz/60 Hz	
Power Consumption		89W (Max) / 64W (Avg)	
Picture Tube		Visible size : 52.1 cm, Measured diagonally H: 41.6 cm × V: 31.5 cm	
High Voltage		26.5 kV ±1.5 kV (at zero beam current)	
Speaker		5 cm × 9 cm, oval type × 2	
Audio Power Output		3 W + 3 W (Rated power output)	
Aerial Input		75 Ω unbalanced, coaxial	
Video / Audio Input-1/2/3	Component Video [VIDEO-2]	RCA pin jack × 3 Y:1V(p-p), positive (negative sync), 75Ω Cb/Cr:0.7V(p-p), 75Ω	
	S-Video [VIDEO-1]	Mini-DIN 4 pin × 1 Y: 1V(p-p), positive (negative sync provided), 75. C: 0.286V(p-p) (Burst signal), 75.	
	Video	1V(p-p), negative sync, 75Ω, RCA pin jack × 3	
	Audio	500mV(rms) (-4dBs), high impedance, RCA pin jack × 6	
Video / Audio Output	Video	1V(p-p), 75Ω, RCA pin jack × 1	
	Audio	500mV(rms)(-4dBs), Low impedance, RCA pin jack × 2	
Headphone jack		3.5 mm stereo mini jack × 1	
Remote Control Unit		RM-C1286 (UM-3/AA/R6 dry cell battery × 2)	

Design and specifications subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

(5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 VOLTAGE).

(6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

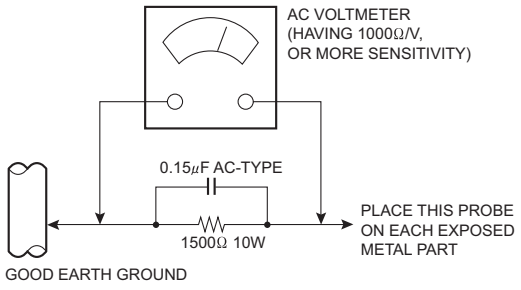
(8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

DVD PICTURE MODE

This function can enhance the picture quality of DVD. The screen can be made sharp or soft by this setting.

AUTO SIGNAL DETECT

When input DVD signal to VIDEO-2, detect the input signal and change the input mode to VIDEO-2 automatically.

CINEMA SURROUND

This function can enjoy an enhanced sound for wider audience.

PICTURE MODE

This function can adjust the picture settings automatically. There are BRIGHT, STANDARD and SOFT in the PICTURE MODE.

RETURN +

This function can set a channel frequently view to the Return Channel and you can view that channel at any time with one-touch.

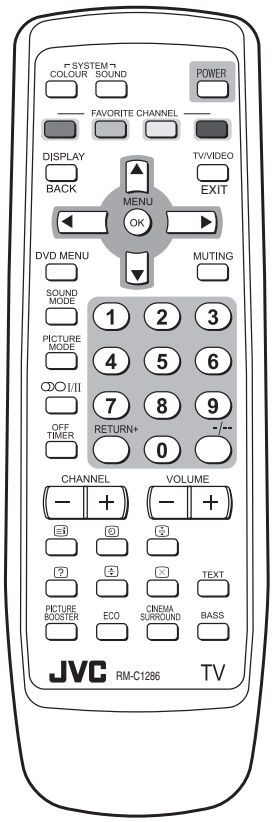
AI ECO SENSOR

This function can adjust TV screen contrast according to the brightness of your room.

2.2 MAIN DIFFERENCE LIST

Item	AV-21BS26	AV-21BX16/G	AV-21BX16B/G
Cabinet colour	Silver	Silver	Black
Teletext	YES	NO	NO
OSD Language	Eng, Chi, Rus, Mal, Ind	Eng, Ara, Fre, Per, Rus	Eng, Ara, Fre, Per, Rus
Stereo System	A2/Nicam	Playback	Playback
MAIN PWB	SCW-1949A-H2	SCW-1951A-H2	SCW-1951A-H2

2.3 REMOTE CONTROL UNIT



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2.4 TECHNINAL INFORMATION

2.4.1 MAIN MI-COM (CPU) PIN FUNCTION

Pin No.	Pin name	I/O	Function	Pin No.	Pin name	I/O	Function
1	VssP2	-	GND	65	SVM	O	Not used
2	VssC4	-	GND	66	FbiSo	I	Flyback input/sandcastle output
3	V1.8C4	I	1.8V (Digital)	67	Hout	O	Horizontal output
4	V3.3A3	I	3.3V	68	VssComb	-	GND
5	VrefP_Sdac	I	3.3V (Positive)	69	V5Comb	I	5V
6	VrefN_Sdac	-	GND	70	Vin/R2/Pr	I	PIP R input
7	VrefP_Sdac	I	3.3V (Negative)	71	Uin/B2/Pb	I	PIP B input
8	VrefN_Sdac	-	GND	72	Yin/G2/Y	I	PIP G input
9	VrefP_Sdac	I	3.3V (Positive)	73	Ysync	I	Not used
10	XtalIn	I	24.576MHz for system clock	74	Yout	O	Not used
11	XtalOut	O	24.576MHz for system clock	75	Uout/INSSW2	I	YUV insertion input
12	VssA1	-	GND	76	NC	O	Not used
13	NECK	I	V-guard input/ I/O switch	77	INSSW3	I	YUV insertion input
14	CONT	I	1.8V regulator control	78	R3/Pr	I	Component PR input (Video-2)
15	V5P1	I	+5V	79	G3/Y	I	Component Y input (Video-2)
16	Ph2	-	Phase-2 filter	80	B3/Pb	I	Component PB input (Video-2)
17	Ph1	-	Phase-1 filter	81	Gnd3	-	GND
18	Gnd1	-	GND	82	V5P3	I	5V
19	SecPll	-	SECAM PLL decoupling	83	BCL	I	Beam current limiter input
20	Dec8G	-	Bandgap decoupling	84	BLKIN	I	Black current input
21	EW	O	East-West drive output	85	Rout	O	R output
22	VDRB-	O	Vertical drive B output	86	Gout	O	G output
23	VDRA+	O	Vertical drive A output	87	Bout	O	B output
24	Vif1	I	Video IF input 1	88	V3.3A1	I	3.3V
25	Vif2	I	Video IF input 2	89	RefAdN	-	GND
26	Vsc	-	Vertical sawtooth capacitor	90	V3.3RefAdP	I	3.3V (Positive)
27	Iref	I	Reference current input	91	RefAd	I	3.3/2V
28	GndIF	-	GND	92	GndA	-	GND
29	Sif1	I	Sound IF input 1	93	V1.8A	I	1.8V
30	Sif2	I	Sound IF input 2	94	V3.3A2	I	3.3V
31	AGC	O	Tuner AGC output	95	VssADC	-	GND
32	EHT	I	EHT/overvoltage protection input	96	V1.8ADC	I	1.8V
33	Ssif/RefIn/Avl/ RefOut	O	Automatic Volume Levelling/ sound IF input / subcarrier reference output / external reference signal input for I signalmixer for DVB operation	97	REMOTE	I	Remote control
34	L3	I	Audio-L3 input (left signal)	98	PW_LED	I	POWER LED control
35	R3	I	Audio-R3 input (right signal)	99	PW_LED	I	POWER LED control
36	L-OUT	O	Audio L output	100	V1.8C2	I	1.8V
37	R-OUT	O	Audio R output	101	VssC2	-	GND
38	DecsDem	-	Decoupling sound demodulator	102	TIMER	-	Not used
39	QssO/AmO/ AudeEm	O	QSS intercarrier output / AM output / deemphasis / (front-end audio out)	103	TIMER	-	Not used
40	Gnd2	-	GND	104	VER_PROTECT	O	X-ray protect
41	PllIf	-	IF-PLL loop filter	105	S_REDUCE	O	Sound control
42	SifAgc	-	AGC sound IF	106	P00/I2SDI1	O	Not used
43	IfVo/FmRo/DvbO	O	Not used	107	POWER	O	SUB POWER control
44	NC	O	Not used	108	SCL1	I	I2C bus clock
45	V8AudioSwitches	I	8V	109	SDA1	I/O	I2C bus data
46	AgcSsif	-	AGC capacitor second sound IF	110	V3.3P	I	3.3V
47	V5P2	I	5V	111	ROTATION	O	Rotation
48	V-OUT	O	Video output	112	3.58/OTHER	O	NTSC 3.58 detection
49	L1	I	Audio-L1 input	113	A_MUTE	O	Audio muting

Pin No.	Pin name	I/O	Function	Pin No.	Pin name	I/O	Function
50	R1	I	Audio-R1 input	114	4.5/OTHER	O	NTSC 4.43 detection
51	V3	I	Video V3 input	115	PROT	I	Protect
52	C4	I	Not used	116	ECO_IN	I	ECO sensor level detection
53	Audio2InL	I	Not used	117	V1.8C1	I	1.8V (Digital)
54	Audio2InR	I	Not used	118	DecV1V8	I	1.8V
55	V2/Y	I	Video V2 input	119	KEY_IN	I	Key scan data
56	L2	I	Audio L2 input (Left signal)	120	VDO-DET	I	Video DET input
57	R2	I	Audio R2 input (right signal)	121	VSSC1+P1	-	Digital GND
58	Y3/Cvbs	I	S-Video Y1 input	122	S_V_DET	I	S-Video DET input
59	C1	I	S-Video C1 input	123	P25/PWM4	O	GTVA_reset
60	AudioLsL	O	Audio L output for audio power amplifier	124	V1.8C3	I	1.8V (Digital)
61	AudioLsR	O	Audio R output for audio power amplifier	125	VssC3	-	GND
62	HP-L	O	Not used	126	P12/Int2	I	External interrupt
63	HP-R	O	Not used	127	SDA0	I/O	I2C bus data (for memory)
64	CVBSO/PIP	O	CVBS / PIP output	128	SCL0	I	I2C bus clock (for memory)

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

- Unplug the power cord.
  (1) Remove the 7 screws **[A]**, and 2 screws **[B]**.
  (2) Withdraw the REAR COVER toward you.

CAUTION:

When reinstalling the rear cover, carefully push it inward after inserting the MAIN PWB into the REAR COVER groove.

3.1.2 REMOVING THE MAIN PW BOARD

- Remove the REAR COVER.
  (1) Slightly raise the both sides of the MAIN PWB by hand.
  (2) Withdraw the MAIN PWB backward.
  (If necessary, take off the wire clamp and connectors, etc.)

3.1.3 REMOVING THE SPEAKER

- Remove the REAR COVER.
  (1) Remove the 2 screws **[C]**.
  (2) Follow the same steps when removing the other hand SPEAKER.

3.1.4 CHECKING THE MAIN PW BOARD

- To check the back side of the MAIN PWB.
  (1) Pull out the MAIN PWB. (Refer to REMOVING THE MAIN PW BOARD).
  (2) Erect the MAIN PWB vertically so that you can easily check its back side.

CAUTIONS:

- Before turning on power, make sure that the CRT earth wire and other connectors are properly connected.
- When repairing, connect the DEG. COIL to the DEG. connector on the MAIN PWB.

3.1.5 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together.
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

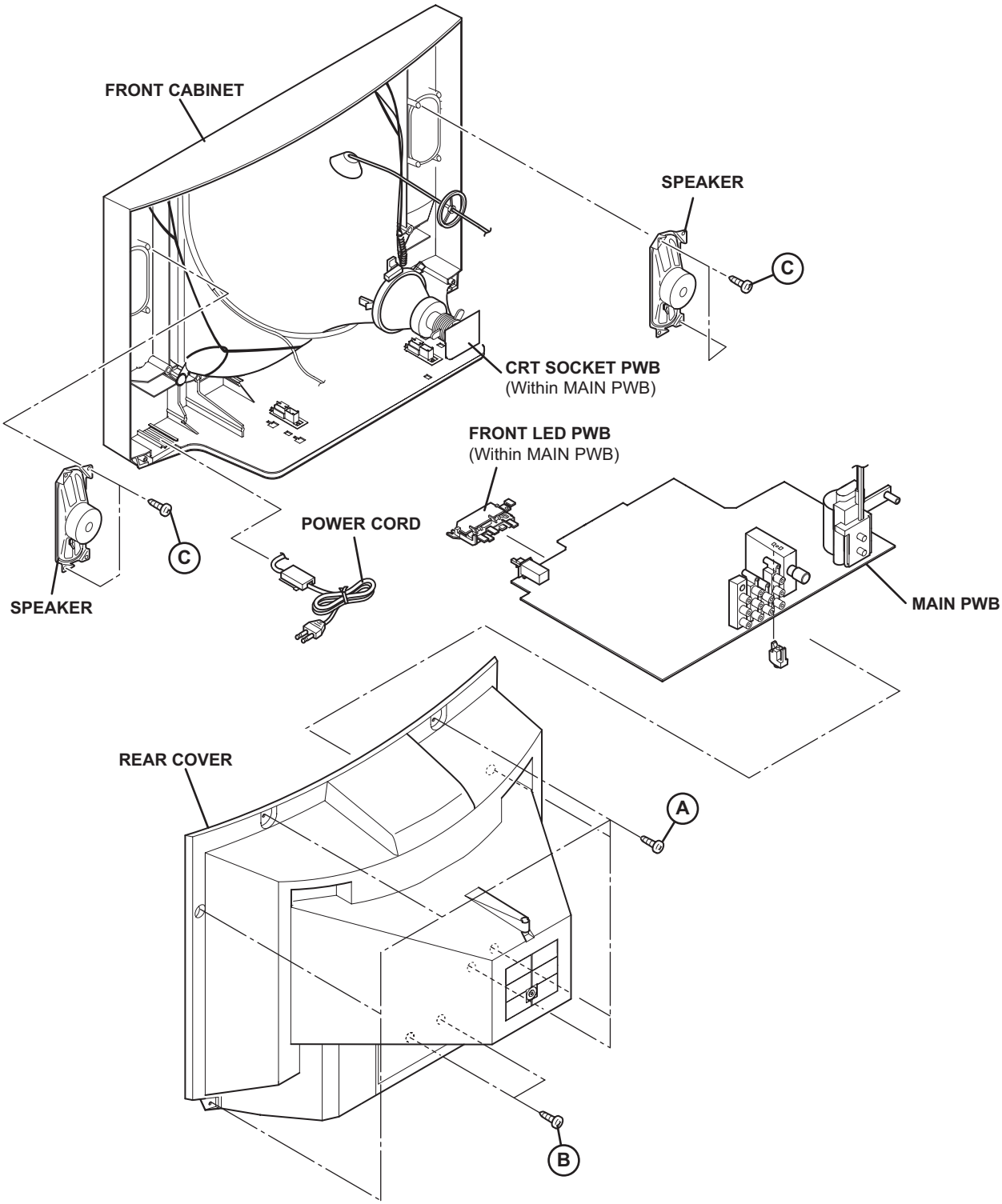

FRONT CABINET
SPEAKER
C
CRT SOCKET PWB
(Within MAIN PWB)
FRONT LED PWB
(Within MAIN PWB)
POWER CORD
C
SPEAKER
MAIN PWB
REAR COVER
A
B

Fig.1

3.2 MEMORY IC REPLACEMENT

• This model uses the memory IC.

Memory IC: IC702 on MAIN PWB

The memory IC memorizes data for correctly operating the video and deflection circuits. When replacing the memory IC, be sure to use the same type IC written with the initial values of data. In other words, use the specific IC listed in "PRINTED WIRING BOARD PARTS LIST". For its mounting location, refer to "ADJUSTMENT LOCATIONS".

3.2.1 MEMORY IC REPLACEMENT PROCEDURE

1. Power off

Switch off the power and disconnect the power plug from the AC outlet.

2. Replace the memory IC

Be sure to use the memory IC written with the initial setting values.

3. Power on

Connect the power plug to the AC outlet and switch on the power.

4. System constant check and setting

* It must not adjust without signal.

(1) Press the **[DISPLAY]** key and the **[PICTURE MODE]** key of the REMOTE CONTROL UNIT simultaneously.
(2) The SERVICE MODE screen of Fig. 1 will be displayed.
(3) While the SERVICE MODE is displayed, press the **[DISPLAY]** key and the **[PICTURE MODE]** key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed.
(4) Check the setting values of the SYSTEM CONSTANT SET. If the value is different, select the setting item with the **[MENU ▲/▼]** key, and set the correct value with the **[MENU ◀ / ▶]** key.
(5) Press the **[OK]** key to memorize the setting value.
(6) Press the **[DISPLAY]** key twice, and return to the normal screen.

5. Receiving channel setting

Refer to the OPERATING INSTRUCTIONS and set the receive channels (Channels Preset) as described.

6. User settings

Check the user setting items according to the given in page later.

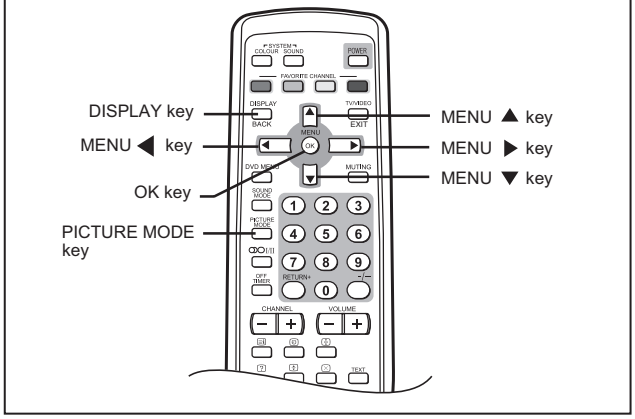
Where these do not agree, refer to the OPERATING INSTRUCTIONS and set the items as described.

7. SERVICE MODE setting

Verify what to set in the SERVICE MODE, and set whatever is necessary (Fig.1).

Refer to the SERVICE ADJUSTMENT for setting.

KEY ASSIGNMENT OF REMOTE CONTROL UNIT



SERVICE MENU

SERVICE MENU

1. IF 2. V/C
3. AUDIO 4. DEF
5. VSM W/B 6. S TATUS
7. PLUG & PLAY (ON)

1-7 : SELECT DISPLAY : EXIT

******* **** ***** *****
**** **** *** ***

Fig.1

SYSTEM CONSTANT-1

SYSTEM CONSTANT SET 1

SYSTEM	: MULTI
COMB	: NO
TILT	: NO
SUPER BASS	: NO
TEXT	: PAT
LANGUAGE	: ERCMI

▼ ▲ : SEL ◀ ▶ : OPE DISP : EXIT

SYSTEM CONSTANT-2

SYSTEM CONSTANT SET 2

SOUND	: STEREO
BILINGUAL	: NO
BLUE BACK MUTE	: NO
COLOUR AUTO	: NO
ECO SENSOR	: SIMPLE
INTER CARRIER	: NO

▼ ▲ : SEL ◀ ▶ : OPE DISP : EXIT

SYSTEM CONSTANT-3

SYSTEM CONSTANT SET 3

SURROUND	: YES
PICTURE BOOSTER	: NO
COMPONENT	: YES
PIP	: NO
S INPUT	: YES
MAXX BASS	: NO

▼ ▲ : SEL ◀ ▶ : OPE DISP : EXIT

Fig.2

3.2.2 SYSTEM CONSTANT SETTING

Setting item	Setting value	
	AV-21BS26	AV-21BX16/G AV-21BX16B/G
SYSTEM	MULTI	←
COMB	NO	←
TILT	NO	←
SUPER BASS	NO	←
TEXT	PAT	NO
LANGUAGE	E/R/C/M/I	E/R/A/P/F
SOUND	STEREO	PB
BILINGUAL	NO	←
BLUE BACK MUTE	NO	←
COLOUR AUTO	NO	YES
ECO SENSOR	SIMPLE	←
INTER CARRIER	NO	←
SURROUND	YES	←
PICTURE BOOSTER	NO	←
COMPONENT	YES	←
PIP	NO	←
S INPUT	YES	←
MAXX BASS	NO	←

3.2.3 SETTINGS OF FACTORY SHIPMENT

3.2.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	PR 1
VOLUME	15

3.2.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item	Setting position
CHANNEL	PR1
VOLUME	15
PICTURE MODE	BRIGHT
DISPLAY	Indicated
TV/VIDEO	TV
CINEMA SURROUND	OFF

3.2.3.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE SETTING

Setting item	Setting position
PICTURE MODE	BRIGHT
CONTRAST / BRIGHT / SHARP / COLOUR / TINT	Centre
WHITE BALANCE	COOL
VNR	AUTO

(2) SOUND SETTING

Setting item	Setting position
STEREO I/II	STEREO SOUND
AI VOLUME	OFF
SOUND MODE	MUSIC
BALANCE	Centre
CINEMA SURROUND	OFF

(3) FEATURE SETTING

Setting item	Setting position
DVD MENU	
AUTO SIGNAL DETECT	ON
DVD PICTURE MODE	OFF
DVD THEATER STATUS	OFF
DVD SOUND MODE	THEATER
ON TIMER	OFF
OFF TIMER	OFF
CHILD LOCK	OFF
COMPRESS (16:9)	OFF
ECO MODE	OFF

(4) INSTALL SETTING

Setting item	Setting position
AUTO PROGRAM	TV channel automatically set
EDIT/MANUAL	PRESET CH only
COLOUR SYSTEM	PAL
LANGUAGE	ENGLISH
TEXT LANGUAGE	GROUP1 [AV-21BS26]
VIDEO-2 SETTING	COMPONENT
BLUE BACK	ON
BEEP	ON

3.2.4 SERVICE MODE SETTING ITEMS

Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT
2. V / C	1. SCREEN 2. CUTOFF(B/G) 3. WDR(R/G/B) 4. BRIGHT(TV/VDO 1/2/3) 5. CONT(TV/VDO 1/2/3) 6. COLOUR (TV/VDO1/2/3) 7. TINT(TV/VDO 1/2/3) 8. SHARP [Do not adjust] 9. Y DELAY [Do not adjust] 10. TINT DVD [Do not adjust] 11. AMP T. SHARP 12. TWIN CONT.
3. AUDIO [Do not adjust]	1. DCXO ADJ 2. NICAM lower ERRLIM 3. NICAM upper ERRLIM 4. A2 ID THR 5. MENU EQUALIZER
4. DEF	1. V-SHIFT 2. V-SLOPE 3. V-SIZE 4. H-CENT 5. H-SIZE 6. TRAPEZ 7. EW-PIN 8. COR-UP 9. COR-LO 10. ANGLE 11. BOW 12. V-S.CR 13. V-LIN 14. V-ZOOM
5. VSM PRESET	1. BRIGHT 2. CONT 3. COLOUR 4. SHARP 5. HUE
	1. R DRIVE 2. G DRIVE 3. B DRIVE
6. STATUS **[Dispaly only]**	---
7. PLUG & PLAY(ON) **[Dispaly only]**	---

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

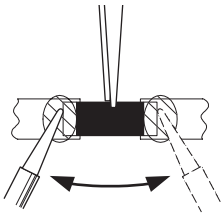
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

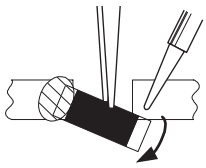
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.



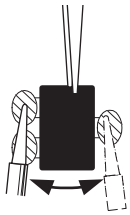
(2) Shift with the tweezers and remove the chip part.



[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.

(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



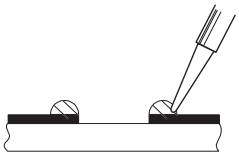
NOTE :

After removing the part, remove remaining solder from the pattern.

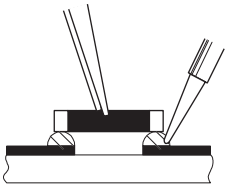
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

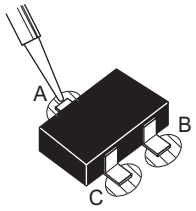


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

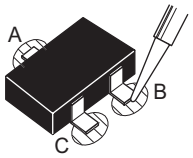


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) **There are 2 ways of adjusting this TV : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
(2) **The adjustment using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
(3) Make sure that connection is correctly made AC to AC power source.
(4) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
(5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
(6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 PRESET SETTING BEFORE ADJUSTMENT

Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

Item	Preset value
PICTURE MODE(VSM)	BRIGHT
VNR	OFF
ECO MODE	OFF
BALANCE	Centre
BASS / TREBLE / BALANCE	Centre
CINEMA SURROUND	OFF

4.3 MEASURING INSTRUMENT AND FIXTURES

(1) DC voltmeter (or digital voltmeter)
(2) Oscilloscope
(3) HV voltmeter
(4) Signal generator
(Pattern generator : PAL/NTSC)
(5) Remote control unit

4.4 ADJUSTMENT ITEMS

■ **CHECK ITEMS**
- B1 VOLTAGE check
- HIGH VOLTAGE check
- IF VCO check

■ **TUNER / IF CIRCUIT**
- DELAY POINT (AGC) adjustment

■ **FOCUS**
- FOCUS adjustment

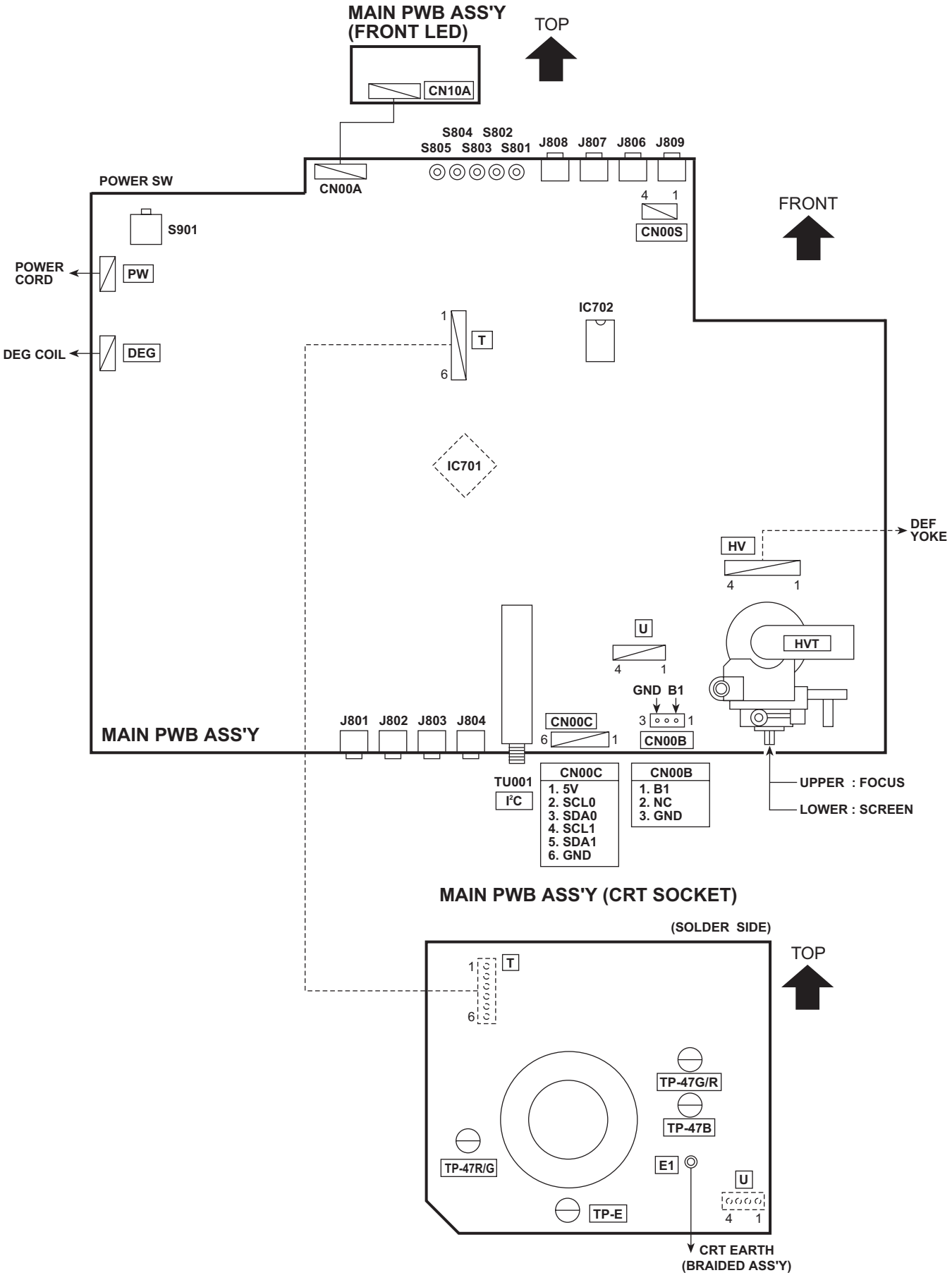
■ **DEFLECTION CIRCUIT**
- V.SLOPE adjustment
- V.POSITION adjustment
- V.SIZE adjustment
- H.POSITION adjustment
- H.SIZE adjustment
- SIDE PIN adjustment
- TRAPEZIUM adjustment
- V. LINEARITY adjustment
- CORNER adjustment
- H. PARALLEL adjustment
- H.BOW adjustment

■ **VIDEO CIRCUIT**
- WHITE BALANCE adjustment
- SUB BRIGHT adjustment
- SUB CONTRAST adjustment
- SUB COLOUR adjustment
- SUB TINT adjustment

■ **VSM PRESET SETTING**
- VSM PRESET

■ **PURITY AND CONVERGENCE**
- PURITY adjustment
- STATIC CONVERGENCE adjustment
- DYNAMIC CONVERGENCE adjustment

4.5 ADJUSTMENT LOCATION



4.6 BASIC OPERATION OF SERVICE MODE

4.6.1 TOOL OF SERVICE MODE OPERATION

Operate the SERVICE MODE with the REMOTE CONTROL UNIT.

4.6.2 SERVICE MODE ITEMS

With the SERVICE MODE, various adjustments can be made, and they are broadly classified in the following items of settings.

1.IF	This mode adjusts the setting values of the IF circuit.
2. V/C	This mode adjusts the setting values of the VIDEO circuit.
3.AUDIO	This mode adjusts the setting values of the multiplicity AUDIO circuit. **[Do not adjust]**
4. DEF	This mode adjusts the setting values of the DEFLECTION circuit for each aspect mode given below.
5.VSM PRESET	This mode adjusts the initial setting values of BRIGHT, STANDARD and SOFT. (VSM : Video Status Memory)
6.STATUS	It is no requirement to adjustment. **[Do not adjust]**
7.PLUG & PLAY (ON)	This mode adjusts the setting values of the PIP circuit. **[Do not adjust]**

4.6.3 BASIC OPERATION IN SERVICE MODE

4.6.3.1 HOW TO ENTER THE SERVICE MODE

(1) Press the **[DISPLAY]** key and the **[PICTURE MODE]** key simultaneously, then enter the SERVICE MODE.
(2) When the main menu is displayed, press any key of the [7] to [9] key to enter the corresponding sub menu mode.

SERVICE MENU

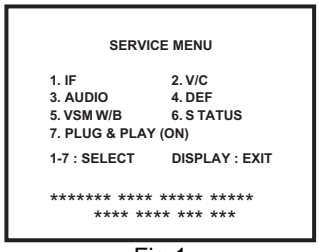
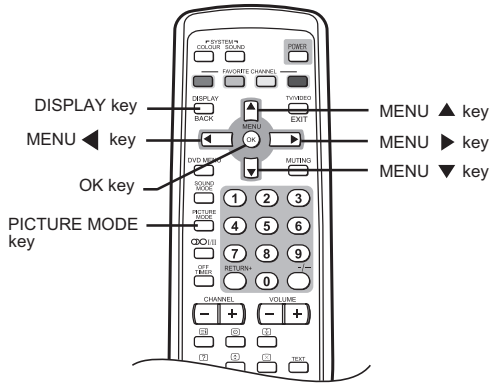


Fig.1

SERVICE MODE SELECT KEY



NOTE:
This illustration is applicable for RM-C1286. The key assignment of this remote control unit is, however, usable for the other type of remote control units.

Fig.2

4.6.3.2 SETTING METHOD

■ **1.IF**

[1. VCO] : It must not adjust without signal

(1) **[1]** key
Select 1.IF.
(2) **[1]** key
Select 1.VCO(CW).
Check the arrow position between the ABOVE REF. and BELOW REF.
(3) **[DISPLAY]** key
Return to the SERVICE MODE main manu screen.

■ **2. V/C, 4. DEF**

(1) **[2]**, **[4]** key
Select one from 2. V/C, 4. DEF.
(2) **[MENU ▲/▼]** key
Select setting items.
(3) **[MENU ◀/▶]** key
Set the setting values of the setting items.

■ **5.VSM W/B**

(1) **[5]** key
Select 5.VSM W/B.
(2) **[OK]** key
Select setting items.
(3) **[MENU ▲/▼]** key
Set the setting values of the setting items.

4.6.3.3 MEMORIZE THE ADJUSTMENT DATA

When adjustment is completed, press the **[OK]** key to memorize the adjustment value. If not to do so, the data is not memorized to the memory IC. And if exit the adjustment mode before to memorize the data, the adjustment value which you have changed will be canceled.

4.6.3.4 RELEASE OF SERVICE MODE

After completing the setting, return to the SERVICE MODE, then again press the **[DISPLAY]** key.

4.6.4 SERVICE MODE FLOW CHART

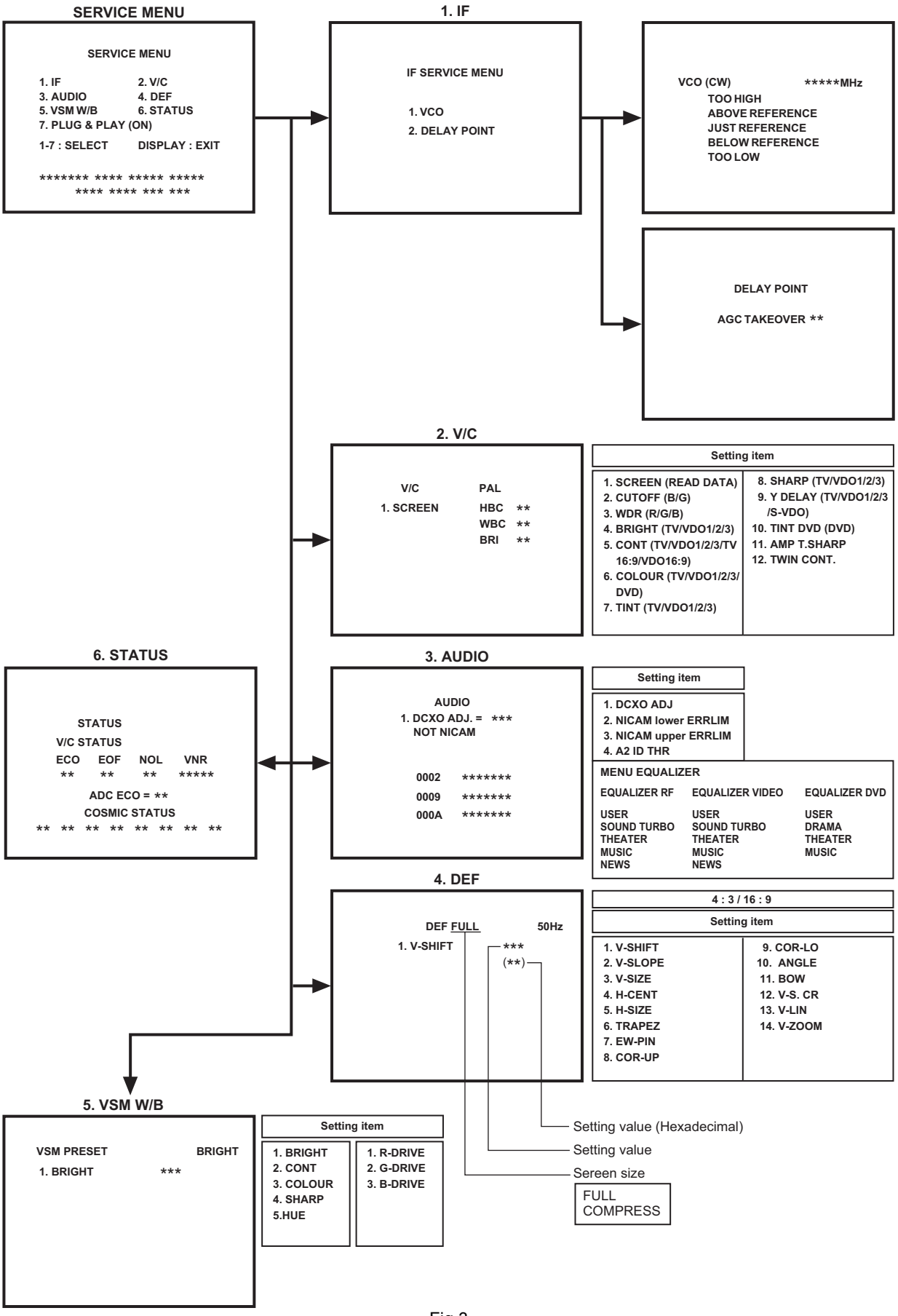


Fig.3

4.7 INITIAL SETTING VALUE OF SERVICE MODE

(1) Adjustment of the SERVICE MODE is made on the basis of the initial setting values:however, the new setting values which set the screen in its optimum condition may differ from the initial setting value.
(2) Do not change the initial setting values of the setting items not listed in "ADJUSTMENT PROCEDURE".
(3) The " --- " means adjustment is not possible.
(4) " 12.TWIN CONT " is displayed only in the models with PIP function.

[2. V/C] * is variable values for adjustment.

[AV-21BS26]

Adjustment item			Variable range	Initial setting value						
				PAL	SECAM	NTSC3.58	NTSC4.43	VIDEO 2	COMPONENT(V-2)	
									525i	625i
1. SCREEN		BRI	0 ~ 63	32*	32*	32*	32*	---	32*	32*
2.	CUT OFF	B	0 ~ 63(-32 ~ +31)	11*	11*	11*	11*	---	(+0)*	(+0)*
		G	0 ~ 63(-32 ~ +31)	7*	7*	7*	7*	---	(-3)*	(-3)*
	CUT OFF THEATER	B	0 ~ 63(-32 ~ +31)	---	---	---	---	-6	---	---
		G	0 ~ 63(-32 ~ +31)	---	---	---	---	-3	---	---
3. WDR		R	0 ~ 63(-32 ~ +31)	32*	32*	32*	32*	---	(0)	(0)
		G	0 ~ 63(-32 ~ +31)	32	32	32	32	---	(0)	(0)
		B	0 ~ 63(-32 ~ +31)	45*	45*	45*	45*	---	(0)	(0)
4. BRIGHT		RF	0 ~ 63	39*	39*	39*	39*	---	---	---
		VIDEO-1(COMPOSITE/S)	(-32 ~ +31)	+0	+0	+0	+0	---	---	---
		VIDEO-2(COMPONENT)	(-32 ~ +31)	-1	-1	-1	-1	---	+0	+0
		VIDEO-3(COMPOSITE)	(-32 ~ +31)	(-1)	(-1)	(-1)	(-1)	---	---	---
5. CONT.		RF	0 ~ 63	32*	32*	32*	32*	---	---	---
		VIDEO-1(COMPOSITE/S)	(-32 ~ +31)	+1	+1	+1	+1	---	---	---
		VIDEO-2(COMPONENT)	(-32 ~ +31)	+1	+1	+1	+1	---	+2	+2
		VIDEO-3(COMPOSITE)	(-32 ~ +31)	+1	+1	+1	+1	---	---	---
6. COLOUR		RF	0 ~ 63(-32 ~ +31)	42*	32*	31*	+1	---	---	---
		VIDEO-1(COMPOSITE/S)	(-32 ~ +31)	-1	-3	-1	+1	---	---	---
		VIDEO-2(COMPONENT)	(-32 ~ +31)	-1	-3	-1	+1	---	+2	+4
		VIDEO-3(COMPOSITE)	(-32 ~ +31)	-1	-3	-1	+1	---	---	---
7. TINT		RF	0 ~ 63(-32 ~ +31)	---	---	+27*	+3	---	---	---
		VIDEO	(-32 ~ +31)	---	---	+5	+0	---	---	---
		THEATER	(-32 ~ +31)	---	---	+4	+4	---	---	---
8. SHARP		RF	0 ~ 63	48	48	48	48	---	40	40
		VIDEO	0 ~ 63	48	48	48	48	---	40	40
9. Y DELAY		RF	0 ~ 15	7	7	5	7	---	---	---
		VIDEO	0 ~ 15	6	9	7	7	---	---	---
		S-VIDEO	0 ~ 15	7	9	9	9	---	---	---
10. TINT DVD		RF	0 ~ 63(-32 ~ +31)	34*	-10	+0	+0	---	---	---
		VIDEO	(-32 ~ +31)	-1	-6	+0	+0	---	+7	+1
		THEATER	(-32 ~ +31)	+0	+0	---	---	---	+3	+1
11. AMP T.SHARP		RF VIDEO	0 ~ 63	0	0	0	0	---	0	0
12. TWIN CONT.		TWIN (RF)	(-32 ~ +31)	-15	-15	-15	-15	---	---	---
		TWIN (VIDEO)	(-32 ~ +31)	---	---	---	---	---	---	---

[AV-21BX16/G, AV-21BX16B/G]

Adjustment item		Variable range	Initial setting value						
			PAL	SECAM	NTSC3.58	NTSC4.43	VIDEO 2	COMPONENT(V-2)	
								525i	625i
1. SCREEN	BRI	0 ~ 63	32*	32*	32*	32*	---	32*	32*
2. CUT OFF	B	0 ~ 63(-32 ~ +31)	11*	11*	11*	11*	---	(+0)*	(+0)*
	G	0 ~ 63(-32 ~ +31)	7*	7*	7*	7*	---	(-3)*	(-3)*
CUT OFF THEATER	B	0 ~ 63(-32 ~ +31)	---	---	---	---	-6	---	---
	G	0 ~ 63(-32 ~ +31)	---	---	---	---	-3	---	---
3. WDR	R	0 ~ 63(-32 ~ +31)	32*	32*	32*	32*	---	(0)	(0)
	G	0 ~ 63(-32 ~ +31)	32	32	32	32	---	(0)	(0)
	B	0 ~ 63(-32 ~ +31)	45*	45*	45*	45*	---	(0)	(0)
4. BRIGHT	RF	0 ~ 63	39*	39*	39*	39*	---	---	---
	VIDEO-1(COMPOSITE/S)	(-32 ~ +31)	+0	+0	+0	+0	---	---	---
	VIDEO-2(COMPONENT)	(-32 ~ +31)	-1	-1	-1	-1	---	+0	+0
	VIDEO-3(COMPOSITE)	(-32 ~ +31)	(-1)	(-1)	(-1)	(-1)	---	---	---
5. CONT.	RF	0 ~ 63	32*	32*	32*	32*	---	---	---
	VIDEO-1(COMPOSITE/S)	(-32 ~ +31)	+1	+1	+1	+1	---	---	---
	VIDEO-2(COMPONENT)	(-32 ~ +31)	+1	+1	+1	+1	---	+2	+2
	VIDEO-3(COMPOSITE)	(-32 ~ +31)	+1	+1	+1	+1	---	---	---
6. COLOUR	RF	0 ~ 63(-32 ~ +31)	42*	32*	31*	+1	---	---	---
	VIDEO-1(COMPOSITE/S)	(-32 ~ +31)	-1	-3	-1	+1	---	---	---
	VIDEO-2(COMPONENT)	(-32 ~ +31)	-1	-3	-1	+1	---	+2	+4
	VIDEO-3(COMPOSITE)	(-32 ~ +31)	-1	-3	-1	+1	---	---	---
7. TINT	RF	0 ~ 63(-32 ~ +31)	---	---	+27*	+3	---	---	---
	VIDEO	(-32 ~ +31)	---	---	+5	+0	---	---	---
	THEATER	(-32 ~ +31)	---	---	+4	+4	---	---	---
8. SHARP	RF	0 ~ 63	48	48	48	48	---	40	40
	VIDEO	0 ~ 63	48	48	48	48	---	40	40
9. Y DELAY	RF	0 ~ 15	7	7	5	7	---	---	---
	VIDEO	0 ~ 15	6	9	7	7	---	---	---
	S-VIDEO	0 ~ 15	7	9	9	9	---	---	---
10. TINT DVD	RF	0 ~ 63(-32 ~ +31)	34*	-10	+0	+0	---	---	---
	VIDEO	(-32 ~ +31)	-1	-6	+0	+0	---	+7	+1
	THEATER	(-32 ~ +31)	+0	+0	---	---	---	+3	+1
11. AMP T.SHARP	RF VIDEO	0 ~ 63	0	0	0	0	---	0	0
12. TWIN CONT.	TWIN (RF)	(-32 ~ +31)	---	---	---	---	---	---	---
	TWIN (VIDEO)	(-32 ~ +31)	---	---	---	---	---	---	---

[3. AUDIO] *This submenu is for display only, no adjustment is required.

[AV-21BS26]

Function	Item	Setting value
AUDIO	1. DC XO ADJ	12H
	2. NICAM LOWER ERR LIM	6FH
	3. NICAM UPPER ERR LIM	B0H
	4. A2 ID THR	00H

Function	MODE	Item	100Hz	300Hz	1kHz	3kHz	8kHz
MENU EQUALIZER	RF	SOUND TURBO	+11	+5	+3	+8	+9
		THEATER	+3	+2	-7	+4	+6
		MUSIC	+4	-1	+1	+7	+9
		NEWS	+1	+3	+6	+3	-4
		USER	+0	+0	+0	+0	+0
	VIDEO	SOUND TURBO	+11	+5	+3	+8	+9
		THEATER	+3	+2	-7	+4	+7
		MUSIC	+4	-1	+1	+7	+9
		NEWS	+1	+3	+6	+3	-4
		USER	+0	+0	+0	+0	+0
	DVD	THEATER	+3	+2	-7	+4	+7
		MUSIC	+4	-1	+1	+7	+9
		DRAMA	+3	+4	+6	+4	-1
		USER	+0	+0	+0	+0	+0

[4. DEF]

Adjustment item	Variable range		Initial setting value			
			4:3		COMPRESS (16:9)	
	4:3 50Hz	Others	50Hz	60Hz	50Hz	60Hz
1. V-SHIFT	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
2. V-SLOPE	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
3. V-SIZE	0 ~ 63	-32 ~ +31	+38*	0*	-14*	0*
4. H-CENT	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
5. H-SIZE	0 ~ 63	-32 ~ +31	(0)	(0)	(0)	(0)
6. TRAPEZ	0 ~ 63	-32 ~ +31	(0)	(0)	(0)	(0)
7. EW-PIN	0 ~ 63	-32 ~ +31	(0)	(0)	(0)	(0)
8. COR-UP	0 ~ 63	-32 ~ +31	(0)	(0)	(0)	(0)
9. COR-LO	0 ~ 63	-32 ~ +31	(0)	(0)	(0)	(0)
10. ANGLE	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
11. BOW	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
12. V-S.CR	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
13. V-LIN	0 ~ 63	-32 ~ +31	+32*	0*	0*	0*
14. V-ZOOM	0 ~ 63	-32 ~ +31	(+25 ~+32)	(0)	-13*	+3*

NOTE: The value with an asterisk * is variable for adjustment. The values in parenthesis ( ) are fixed values.
V-ZOOM DATA can adjust follow data range in case measurement line power on is appeared.

[5. VSM W/B]

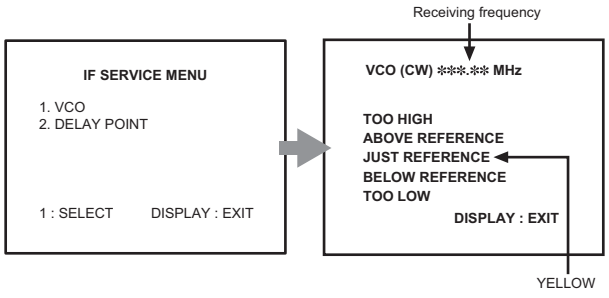
Setting item	Variable range	Setting value			
		BRIGHT	SOFT	STANDARD	THEATER
1. BRIGHT	-16 - 16	0	0	0	+2
2. CONT	-16 - 16	+15	+5	+10	-3
3. COLOUR	-16 - 16	0	0	-4	-7
4. SHARP	-16 - 16	0	-10	-5	0
5. HUE	-16 - 16	0	0	0	-1

Setting item	Variable range	Setting value			
		COOL	WARM	NAORMAL	THEATER
1. R DRIVE	-64 - 63	0	+10	0	+13
2. G DRIVE	-64 - 63	0	-4	+2	+7
3. B DRIVE	-64 - 63	0	-12	-10	-19

4.8 ADJUSTMENT PROCEDURE

4.8.1 CHECK ITEM

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE	DC voltmeter Remote control unit	CN00B connector 1-pin:TP-B1 3-pin:TP-E **[MAIN PWB]**		(1) Receive any broadcast. (2) Connect a DC voltmeter to 1-pin and 3-pin of CN00B connector. (3) Make sure that the voltage is **DC115.0V ±2.0V**.
HIGH VOLTAGE	HV voltmeter Remote control unit	CRT anode Chassis GND		(1) Receive any broadcast. (2) Connect the earth clip of HV voltmeter to chassis GND. (3) Connect the probe of HV voltmeter to CRT anode. (4) Make sure that the voltage is **DC26.5kV ±1.5kV**. **NOTE:** • Remove the probe before removing the earth clip.
IF VCO	Remote control unit		[1.IF] 1.VCO	• Under normal conditions, no adjustment is required. • Confirmation adjustment. (1) Select **1.IF** from the SERVICE MODE. (2) Select **<1.VCO>** (3) Receive any broadcast. (4) Check the ←(Arrow) posspition between the ABOVE REF. and BELOW REF.



4.8.2 TUNER / IF CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
DELAY POINT (AGC)	Signal generator Remote control unit		[1. IF] 2. DELAY POINT (AGC TAKE-OVER)	(1) Receive a black and white signal (colour off). (2) Select 1. IF. (3) Select **<2. DELAY POINT>**. (4) Set the setting values of the setting items as shown bellow table. (5) Then adjust the **[MENU - / +]** keys until video noise disappears. (6) Turn to other channels and make sure that there are no irregularities.

Setting Item		Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	NTSC3.58	0 - 127	28
	OTHER		28

4.8.3 FOCUS

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS	Signal generator		FOCUS VR [In HVT]	(1) Receive the cross hatch signal. (2) While looking at the screen, adjust the **FOCUS VR** to the vertical and horizontal lines will be thinnest and sharpest. (3) Make sure that the picture is in focus even when the screen gets darkened.

4.8.4 DEFLECTION CIRCUIT

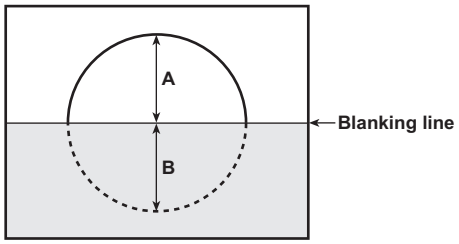
- The setting (adjustment) using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- When performing deflection circuit adjustment, adjusts PAL signal (fv: 50 Hz) in 4:3 mode and 16:9 mode respectively, and adjust the NTSC signal (fv: 60 Hz) similarly.

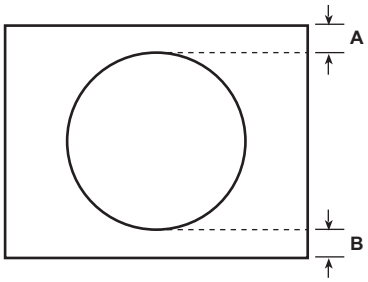
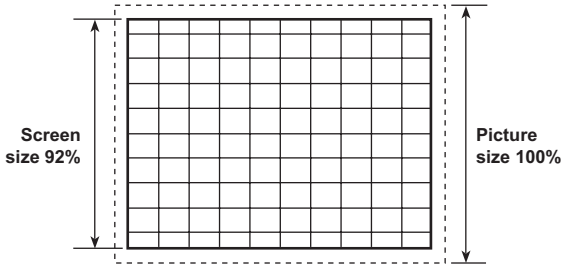
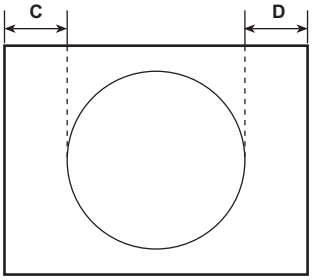
NOTE:

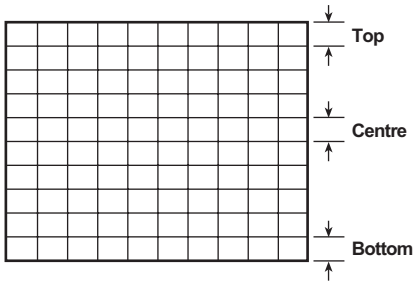
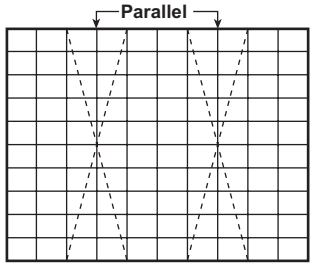
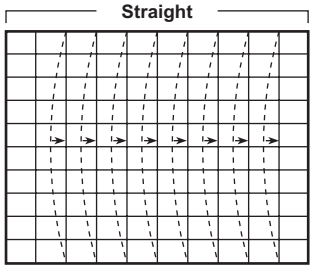
Proceed to the following adjustment after having completed the adjustments of SUB BRIGHT and SUB PICTURE.

■ **COMPRESS: OFF (4:3)**

Item	Measuring instrument	Test point	Adjustment part	Description
V. SLOPE	Signal generator Remote control unit		[4. DEF] 2. V-SLOPE	**PAL V. SLOPE** (1) Receive a circle pattern signal of vertical frequency 50Hz (PAL). (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<2. V-SLOPE>**. (4) Set the initial setting value of **<2. V-SLOPE>**. (5) Adjust **<2. V-SLOPE>** to make "**A = B**". (6) Press the **[OK]** key to memorize the set values. **NTSC V. SLOPE** (1) Receive a circle pattern signal of vertical frequency 60Hz (NTSC). (2) Follow the same step 2 to 6 as in PAL V. SLOPE.

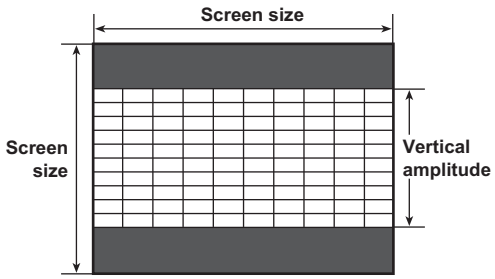


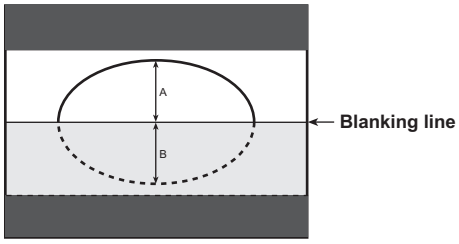
Item	Measuring instrument	Test point	Adjustment part	Description
V. POSITION	Signal generator Remote control unit		[4. DEF] 1. V-SHIFT	**PAL V. POSITION** (1) Receive a circle pattern signal of vertical frequency 50Hz (PAL). (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<1. V-SHIFT>**. (4) Set the initial setting value of **<1. V-SHIFT>**. (5) Adjust **<1. V-SHIFT>** to make "**A = B**". (6) Press the **[OK]** key to memorize the set values. **NTSC V. POSITION** (1) Receive a circle pattern signal of vertical frequency 60Hz (NTSC). (2) Follow the same step 2 to 6 as in PAL V. POSITION.
				
V. SIZE	Signal generator Remote control unit		[4. DEF] 3. V-SIZE	**PAL V. SIZE** (1) Receive a PAL crosshatch signal. (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<3. V-SIZE>**. (4) Set the initial setting value of **<3. V-SIZE>**. (5) Adjust **<3. V-SIZE>** to make the vertical screen size to **92%** of the picture size. (6) Press the **[OK]** key to memorize the set values. **NTSC V. SIZE** (1) Receive a NTSC crosshatch signal. (2) Follow the same step 2 to 6 as in PAL V. SIZE.
				
H. POSITION	Signal generator Remote control unit		[4. DEF] 4. H-CENT	**PAL H. POSITION** (1) Receive a PAL circle pattern signal. (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<4. H-CENT>**. (4) Set the initial setting value of **<4. H-CENT>**. (5) Adjust **<4. H-CENT>** to make "**C = D**". (6) Press the **[OK]** key to memorize the set values. **NTSC H. POSITION** (1) Receive a NTSC circle pattern signal. (2) Follow the same step 2 to 6 as in PAL H. POSITION.
				

Item	Measuring instrument	Test point	Adjustment part	Description
V.LINEARITY	Signal generator Remote control unit		[4. DEF] 12. V-S. CR 13. V-LIN	**PAL V. LINEARITY** (1) Receive a PAL crosshatch signal. (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<12. V-S.CR>**. (4) Set the initial setting value of **<12. V-S. CR>**. (5) Select **<13. V-LIN>**. (6) Set the initial setting value of **<13. V-LIN>**. (7) Adjust **<12. V-S. CR>** and **<13. V-LIN>** so that the spaces of each line on TOP, CENTRE and BOTTOM become uniform. (8) Press the **[OK]** key to memorize the set values. **NTSC V. LINEARITY** (1) Receive a NTSC crosshatch signal. (2) Follow the same step 2 to 8 as in PAL V-S. CR.
				
H. PARALLEL	Signal generator Remote control unit		[4.DEF] 10. ANGLE	**PAL H. PARALLEL** (1) Receive a PAL crosshatch signal. (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<10. ANGLE>**. (4) Set the initial setting value of **<10. ANGLE>**. (5) Adjust **<10. ANGLE>** to optimize the trapezium distortion at the centre of the screen. (6) Press the **[OK]** key to memorize the set values. **NTSC H. PARALLEL** (1) Receive a NTSC crosshatch signal. (2) Follow the same step 2 to 6 as in PAL H. PARALLEL.
				
H. BOW	Signal generator Remote control unit		[4.DEF] 11. BOW	**PAL H. BOW** (1) Receive a PAL crosshatch signal. (2) Select **4. DEF** from the SERVICE MODE. (3) Select **<11. BOW>**. (4) Set the initial setting value of **<11. BOW>**. (5) Adjust **<11. BOW>** to optimize the horizontal arc distortion. (6) Press the **[OK]** key to memorize the set values. **NTSC H. BOW** (1) Receive a NTSC crosshatch signal. (2) Follow the same step 2 to 6 as in PAL H. BOW.
				

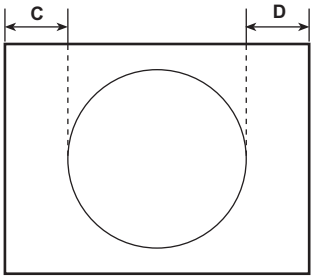
■ **COMPRESS : ON (16:9)**

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>V. SIZE</td><td>Signal generator

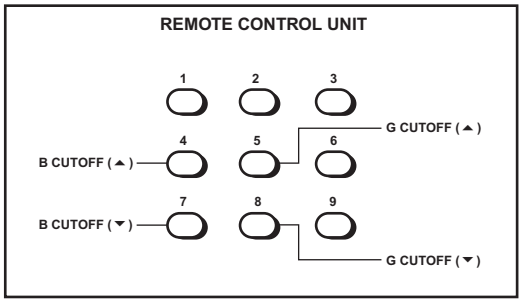
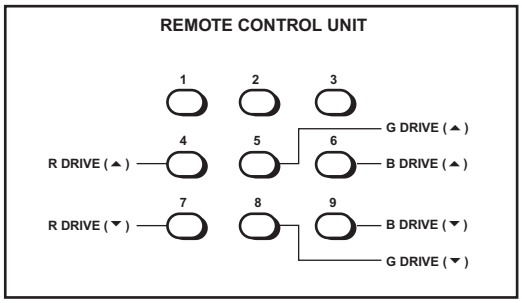
Remote control unit</td><td></td><td>[4.DEF]
14. V. ZOOM
3. V-SIZE</td><td rowspan="2">PAL V. SIZE
(1) Receive a circle pattern signal of vertical frequency 50Hz (PAL).
(2) Set the COMPRESS(16 : 9) to ON.
(3) Select 4. DEF from the SERVICE MODE.
(4) Set the initial setting value of <14. V. ZOOM>.
(5) Select <3. V-SIZE>.
(6) Set the initial setting value of <3. V-SIZE>.
(7) Adjust <3. V-SIZE> to set the vertical amplitude of the image to 240mm.
(8) Press the [OK] key to memorize the set values.
NTSC V. SIZE
(1) Receive a crosshatch signal of vertical frequency 60Hz (NTSC).
(2) Follow the same step 2 to 8 as in PAL V. SIZE.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>V. SLOPE</td><td>Signal generator

Remote control unit</td><td></td><td>[4.DEF]
2. V-SLOPE</td><td rowspan="2">PAL V. SLOPE
(1) Receive a circle pattern signal of vertical frequency 50Hz (PAL).
(2) Set the COMPRESS(16 : 9) to ON.
(3) Select 4. DEF from the SERVICE MODE.
(4) Select <2. V-SLOPE>.
(5) Set the initial setting value of <2. V-SLOPE>.
(6) Adjust <2. V-SLOPE> to make "A = B".
(7) Press the [OK] key to memorize the set values.
NTSC V. SLOPE
(1) Receive a circle pattern signal of vertical frequency 60Hz (NTSC).
(2) Follow the same step 2 to 7 as in PAL V-SLOPE.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

■ **VIDEO - 2 SET: COMPONENT**

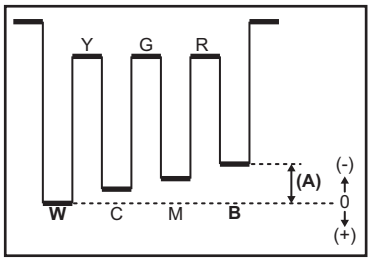
Item	Measuring instrument	Test point	Adjustment part	Description
H. POSITION	Signal generator Remote control unit		[4. DEF] 4. H-CENT	(1) Receive a PAL circle pattern signal to VIDEO-2 component terminal. (2) Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. (3) Select **4. DEF** from the SERVICE MODE. (4) Select **<4. H-CENT>**. (5) Set the initial setting value of **<4. H-CENT>**. (6) Adjust **<4. H-CENT>** to make "**C=D**". (7) Press the **[OK]** key to memorize the set values.
				

4.8.5 VIDEO CIRCUIT

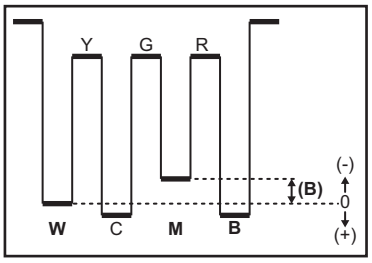
Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE (Low light)	Signal generator Remote control unit		[2. V/C] 2. CUTOFF (B) 2. CUTOFF (G) SCREEN VR [In HVT]	**COMPOSITE WHITE BALANCE** (1) Receive a PAL black and white signal (colour off). (2) Set the PICTURE MODE to **BRIGHT**. (3) Select **2. V/C** from the SERVICE MODE. (4) Select **<2. CUTOFF> (B)** and **(G)**. (5) Set each value to initial setting value with the **[4]** / **[7]** keys and **[5]** / **[8]** keys. (6) Turn the **SCREEN VR** fully counterclockwise, then slowly turn it clockwise to where a red, blue or green colour is faintly visible. (7) Use the **[4]** / **[7]** and **[5]** / **[8]** keys to adjust so that the other 2 colours appear white. (8) Turn the **SCREEN VR** to where the single horizontal line glows faintly. (9) Press the **[OK]** key to memorize the set values. **COMPONENT WHITE BALANCE** (1) Receive a PAL component black and white signal (colour off). (2) Select VIDEO-2 SET from the MENU and set VIDEO-2 SET to COMPONENT. (3) Adjust COMPONENT WHITE BALANCE in the same way as "COMPOSITE WHITE BALANCE".
				
WHITE BALANCE (High light)	Signal generator Remote control unit		[2. V/C] 3. WDR (R) 3. WDR (G) 3. WDR (B)	(1) Receive a PAL black and white signal (colour off). (2) Set the PICTURE MODE to **BRIGHT**. (3) Select **2. V/C** from the SERVICE MODE. (4) Select **<3. WDR> (R)**, **(G)** and **(B)**. (5) Set each value to initial setting value with the **[4]** to **[9]** keys. (6) Use the **[4]** to **[9]** keys to produce a white screen. (7) Press the **[OK]** key to memorize the set values.
				

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>SUB BRIGHT</td><td>Remote control unit</td><td></td><td>[2. V/C]
4. BRIGHT</td><td>(1) Receive a NTSC broadcast.
(2) Set the PICTURE MODE to BRIGHT.
(3) Select 2. V/C from the SERVICE MODE.
(4) Select <4. BRIGHT>.
(5) Set the initial setting value of <4. BRIGHT>.
(6) If the brightness is not best with the initial setting value, make fine adjustment until you get the best brightness.
(7) Press the [OK] key to memorize the set values.</td></tr>
<tr><td>SUB CONTRAST</td><td>Remote control unit</td><td></td><td>[2. V/C]
5. CONT</td><td>(1) Receive a NTSC broadcast.
(2) Set the PICTURE MODE to BRIGHT.
(3) Select 2. V/C from the SERVICE MODE.
(4) Select <5. CONT>.
(5) Set the initial setting value of <5. CONT>.
(6) If the contrast is not best with the initial setting value, make fine adjustment until you get the best contrast.
(7) Press the [OK] key to memorize the set values.</td></tr>
<tr><td rowspan="2">SUB COLOUR</td><td>Remote control unit</td><td></td><td>[2. V/C]
6. COLOUR</td><td rowspan="2">[Method of adjustment without measuring instrument]
PAL COLOUR
(1) Receive a PAL M broadcast.
(2) Set the PICTURE MODE to BRIGHT.
(3) Select 2. V/C from the SERVICE MODE.
(4) Select <6. COLOUR>.
(5) Set the initial setting value of <6. COLOUR>.
(6) If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.
(7) Press the [OK] key to memorize the set values.
SECAM COLOUR
(1) Receive a SECAM broadcast.
(2) Follow the same step 2 to 7 as in PAL COLOUR.
NTSC 3.58 COLOUR
(1) Receive a NTSC 3.58MHz broadcast.
(2) Follow the same step 2 to 7 as in PAL COLOUR.
NTSC 4.43 COLOUR
• When NTSC 3.58 COLOUR is set, NTSC 4.43 COLOUR will be automatically set.</td></tr>
<tr><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47B
TP-E
[CRT SOCKET PWB]</td><td>[2. V/C]
6. COLOUR</td></tr>
<tr><td colspan="4"> 

<table>
<tr><th rowspan="2"></th><th colspan="3">Voltage setting</th></tr>
<tr><th>PAL</th><th>SECAM</th><th>NTSC3.58</th></tr>
<tr><td>VOLTAGE (W-B)</td><td>+20V</td><td>+6V</td><td>+21V</td></tr>
</table></td><td>[Method of adjustment using measuring instrument]
PAL COLOUR
(1) Receive a PAL M colour bar signal (full field colour bar 75% white).
(2) Connect the oscilloscope between TP-47B and TP-E.
(3) Set the PICTURE MODE to BRIGHT.
(4) Select 2. V/C from the SERVICE MODE.
(5) Select <6. COLOUR>.
(6) Set the initial setting value of <6. COLOUR>.
(7) Adjust the value of (A) to the value in the voltage table in the left.
(8) Press the [OK] key to memorize the set values.
SECAM COLOUR
(1) Receive a SECAM colour bar signal (full field colour bar 75% white)
(2) Follow the same step 2 to 8 as in PAL COLOUR.
NTSC 3.58 COLOUR
(1) Receive a NTSC 3.58MHz broadcast.
(2) Follow the same step 2 to 8 as in PAL COLOUR.
NTSC 4.43 COLOUR
• When NTSC 3.58 COLOUR is set, NTSC 4.43 COLOUR will be automatically set.</td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part	Description
SUB TINT	Remote control unit		[2. V/C] 7. TINT	**[Method of adjustment without measuring instrument]** **PAL TINT** (1) Receive a PAL broadcast. (2) Set the PICTURE MODE to BRIGHT. (3) Select 2. V/C from the SERVICE MODE. (4) Select **<7. TINT>**. (5) Set the initial setting value of **<7. TINT>**. (6) If you cannot get the best HUE with the initial setting value, make fine adjustment until you get the best TINT. (7) Press the **[OK]** key to memorize the best values. **NTSC 3.58 TINT** (1) Receive a NTSC 3.58 broadcast. (2) Follow the same step 2 to 8 as in PAL TINT. **NTSC 4.43 TINT** • When NTSC 3.58 TINT is set, NTSC 4.43 TINT will be automatically set. **PAL TINT (DVD)** (1) Receive a PAL broadcast. (2) Set the PICTURE MODE to BRIGHT. (3) Select 2. V/C from the SERVICE MODE. (4) Select **<10. TINT DVD>**. (5) Set the initial setting value of **<10. TINT DVD>**. (6) If you cannot get the best HUE with the initial setting value, make fine adjustment until you get the best TINT. (7) Press the **[OK]** key to memorize the best values.
	Signal generator Oscilloscope Remote control unit	TP-47B TP-E **[CRT SOCKET PWB]**	[2. V/C] 7. TINT	**[Method of adjustment using measuring instrument]** **PAL TINT** (1) Receive a PAL colour bar signal (full field colour bar 75% white). (2) Connect the oscilloscope to TP-47B and TP-E. (3) Set the PICTURE MODE to BRIGHT. (4) Select 2. V/C from the SERVICE MODE. (5) Select <7. TINT>. (6) Set the initial setting value of **<7. TINT>**. (7) If you cannot get the best HUE with the initial setting value, make fine adjustment until you get the best TINT. (8) Press the **[OK]** key to memorize the best values. **NTSC 3.58 TINT** (1) eceive a NTSC 3.58 colour bar signal (full field colour bar 75% white). (2) Follow the same step 2 to 8 as in PAL TINT. **NTSC 4.43 TINT** • When NTSC 3.58 TINT is set, NTSC 4.43 TINT will be automatically set. **PAL TINT (DVD)** (1) Receive a PAL colour bar signal (full field colour bar 75% white). (2) Connect the oscilloscope to TP-47B and TP-E. (3) Set the PICTURE MODE to BRIGHT. (4) Select 2. V/C from the SERVICE MODE. (5) Select **<10. TINT DVD>**. (6) Set the initial setting value of **<10. TINT>**. (7) If you cannot get the best HUE with the initial setting value, make fine adjustment until you get the best TINT. (8) Press the **[OK]** key to memorize the best values.
				

4.8.6 VSM PRESET SETTING

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>VSM PRESET</td><td>Remote control unit</td><td></td><td>[5.VSM W/B]
1. BRIGHT
2. CONT
3. COLOUR
4. SHARP
5. HUE
1. R-DRIVE
2. G-DRIVE
3. B-DRIVE</td><td rowspan="2">(1) Select 5.VSM W/B from the SERVICE MODE.
(2) Select the BRIGHT with the [OK] key.
(3) Adjust the [MENU ◀ / ▶] key to bring the set values of <1. BRIGHT> - <5. HUE> to the values shown in the table.
(4) Press the [OK] key to memorize the set values.
(5) Respectively select the VSM PRESET mode for STANDARD, SOFT and THEATER.
(6) Select COOL with the [OK] key.
(7) Adjust the [MENU ◀ / ▶] key to bring the set values of <1. R DRIVE> to <3. B DRIVE> to the values shown in the table.
(8) Press the [OK] key to memorize the set values.
(9) Respectively select the WIHITE BALANCE mode for WARM and NORMAL.</td></tr>
<tr><td colspan="4">
<table>
<tr><th>VSM preset / Setting item</th><th>BRIGHT</th><th>STANDARD</th><th>SOFT</th><th>THEATER</th></tr>
<tr><td>1. BRIGHT</td><td>0</td><td>0</td><td>0</td><td>+2</td></tr>
<tr><td>2. CONT</td><td>+15</td><td>+10</td><td>+5</td><td>-3</td></tr>
<tr><td>3. COLOUR</td><td>0</td><td>-4</td><td>0</td><td>-7</td></tr>
<tr><td>4. SHARP</td><td>0</td><td>-5</td><td>-10</td><td>0</td></tr>
<tr><td>5. HUE</td><td>0</td><td>0</td><td>0</td><td>-1</td></tr>
</table>
<table>
<tr><th>W/B preset / Setting item</th><th>COOL</th><th>NORMAL</th><th>WARM</th><th>THEATER</th></tr>
<tr><td>1. R DRIVE</td><td>0</td><td>0</td><td>+10</td><td>+13</td></tr>
<tr><td>2. G DRIVE</td><td>0</td><td>+2</td><td>-4</td><td>+7</td></tr>
<tr><td>3. B DRIVE</td><td>0</td><td>-10</td><td>-12</td><td>-19</td></tr>
</table>
</td></tr>
</table>

4.8.7 PURITY AND CONVERGENCE

■ **PURITY ADJUSTMENT**

NOTE:

The final adjustment of CONVERGENCE must be done after the FOCUS adjustment. (CONVERGENCE is changed by FOCUS adjustment.)
When makes difference by FOCUS adjustment, should be reconfirming PURITY adjustment.

(1) Demagnetize CRT with the demagnetizer.

(2) Loosen the retainer screw of the deflection yoke.

(3) Remove the wedges.

(4) Input a green raster signal from the signal generator, and turn the screen to green raster.

(5) Move the deflection yoke backward.

(6) Bring the long lug of the purity magnets on the short lug and position them horizontally. (Fig.2)

(7) Adjust the gap between two lugs so that the GREEN RASTER will come into the centre of the screen. (Fig.3)

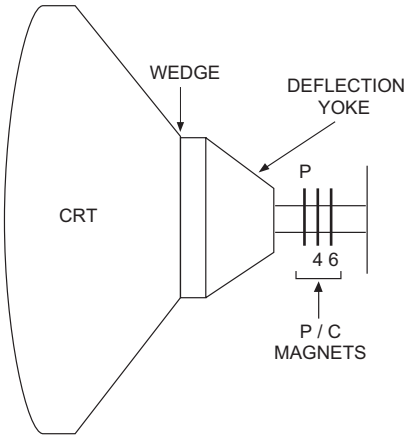
(8) Move the deflection yoke forward, and fix the position of the deflection yoke so that the whole screen will become green.

(9) Insert the wedge to the top side of the deflection yoke so that it will not move.

(10) Input a crosshatch signal.

(11) Verify that the screen is horizontal.

(12) Input red and blue raster signals, and make sure that purity is properly adjusted.



• P/C MAGNETS

P : PURITY MAGNET
4 : 4 POLES (convergence magnets)
6 : 6 POLES (convergence magnets)

Fig.1

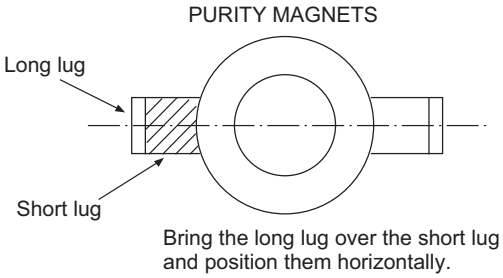


Fig.2

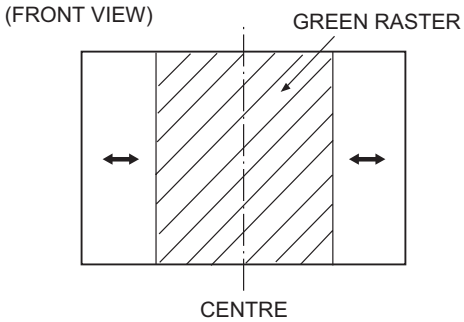


Fig.3

■ STATIC CONVERGENCE ADJUSTMENT

(1) Input a crosshatch signal.

(2) Using 4-pole convergence magnets, overlap the red and blue lines in the centre of the screen (Fig.1) and turn them to magenta (red/blue).

(3) Using 6-pole convergence magnets, overlap the magenta (red/blue) and green lines in the centre of the screen and turn them to white.

(4) Repeat 2 and 3 above, and make best convergence.

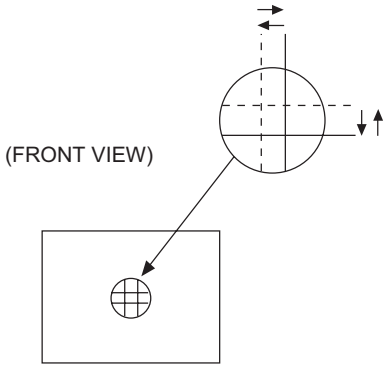


Fig.1

■ DYNAMIC CONVERGENCE ADJUSTMENT

(1) Move the deflection yoke up and down and overlap the lines in the periphery. (Fig. 2)

(2) Move the deflection yoke left to right and overlap the lines in the periphery. (Fig. 3)

(3) Repeat 1 and 2 above, and make best convergence.

(4) Adjust XV by XV coil. (Fig.4)

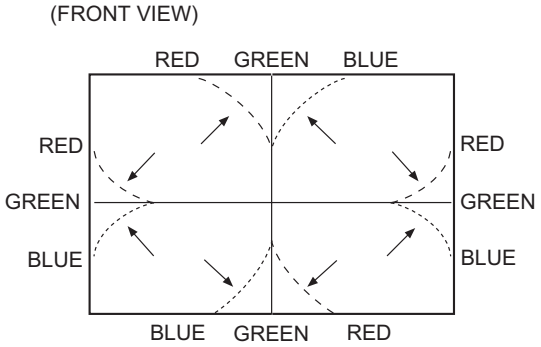


Fig.2

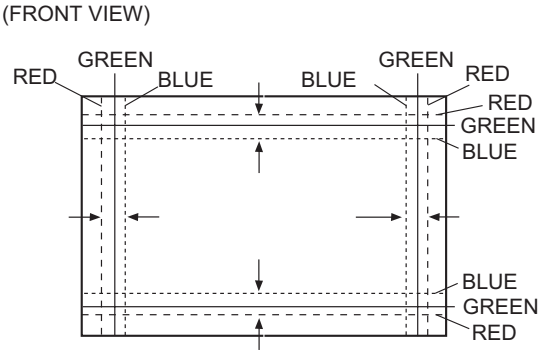


Fig.3

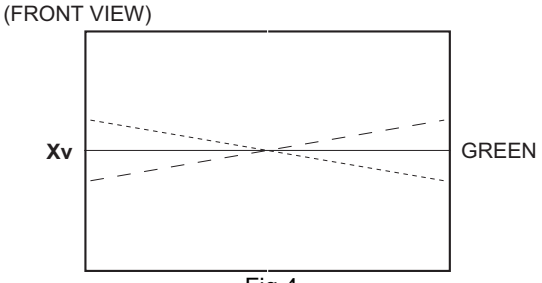


Fig.4

- After adjustment, fix the wedge at the original position. Fasten the retainer screw of the deflection yoke. Fix the P/C magnets with glue.

SECTION 5
TROUBLESHOOTING

5.1 SELF CHECK FUNCTIONS

5.1.1 OUTLINE

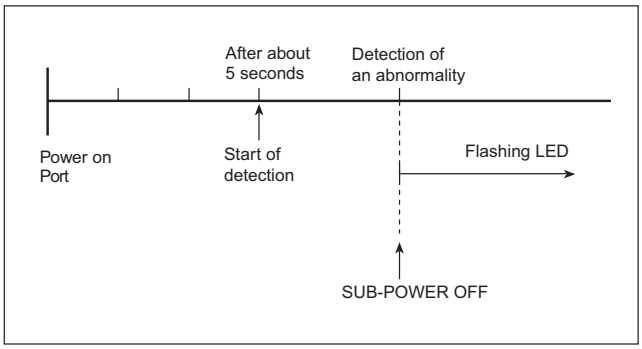
This model has self check functions given below. When an abnormality has been detected, the SUB POWER is turned off and POWER LED flashes to inform of the failure. An abnormality is detected by the signal input state of the control line connected to the microcomputer.

5.1.2 SELF CHECK ITEMS

Check item	Details of detection	Method of detection	State of abnormality
B1 over-current protection	An over-current on the low B1 line is detected.	The main microcomputer detects the possible abnormality at 24-msec. intervals and judges the results in every 16 time. Of the 16 times, if NG is detected more than 9 times, it is judged that there is an abnormality.	When an abnormality has been detected, the SUB-POWER is turned off. While the SUB-POWER is being turned off, the POWER key on the remote control unit is not operational until the power cord is disconnected and connected again.
CRT neck broken protection	Operation of CRT neck protection circuit.		

5.1.3 SELF CHECK INDICATING FUNCTION

When an abnormality has been detected at about 5 seconds after the power was turned on, the SUB POWER is turned off immediately and the POWER LED flashes.



[INDICATION BY THE POWER LED]

Item	LED flashing intervals
B1 over-current protection / CRT neck broken protection	0.3 seconds

JVC
Victor Company of Japan, Limited
Display Category 12, 3-chome, Moriya-cho, Kanagawa-ku, Yokohama-city, Kanagawa-prefecture, 221-8528, Japan

(No.YA443)

Printed in Japan
VPT

JVC

SCHEMATIC DIAGRAMS

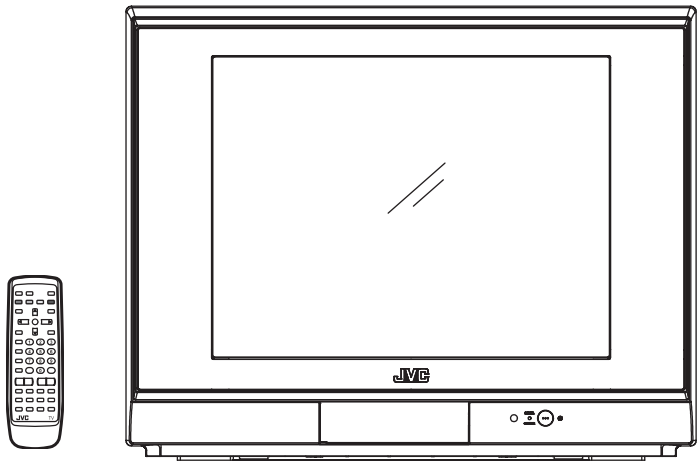
COLOUR TELEVISION

AV-21BS26,
AV-21BX16/G,
AV-21BX16B/G

CD-ROM No.SML200608

BASIC CHASSIS
CW3

InteríArt



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No.YA443
2006/8

AV-21BS26, AV-21BX16/G, AV-21BX16B/G
STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20μs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [μF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [μF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

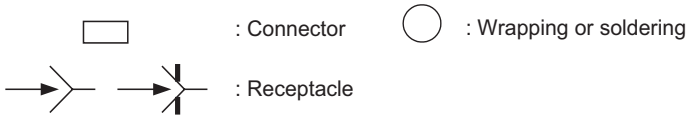
No unit	: [μH]
Others	: As specified

(4)Power Supply

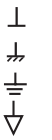
∗ Respective voltage values are indicated

(5)Test point

(6)Connecting method



(7)Ground symbol



5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

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PATTERN DIAGRAMS
MAIN PWB PATTERN 2-9
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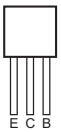
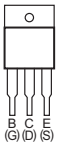
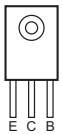
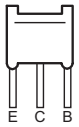
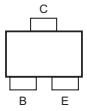
WAVEFORMS 2-12

USING P.W. BOARD

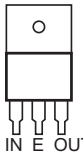
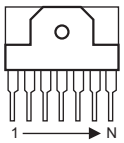
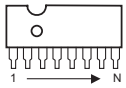
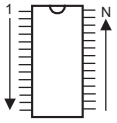
P.W.B ASS'Y name	AV-21BS26	AV-21BX16/G AV-21BX16B/G
MAIN P.W. BOARD	SCW-1949A-H2	SCW-1951A-H2

SEMICONDUCTOR SHAPES

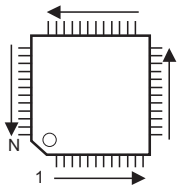
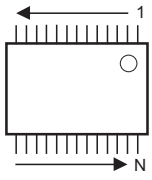
TRANSISTOR

BOTTOM VIEW	FRONT VIEW				TOP VIEW
					CHIP TR 

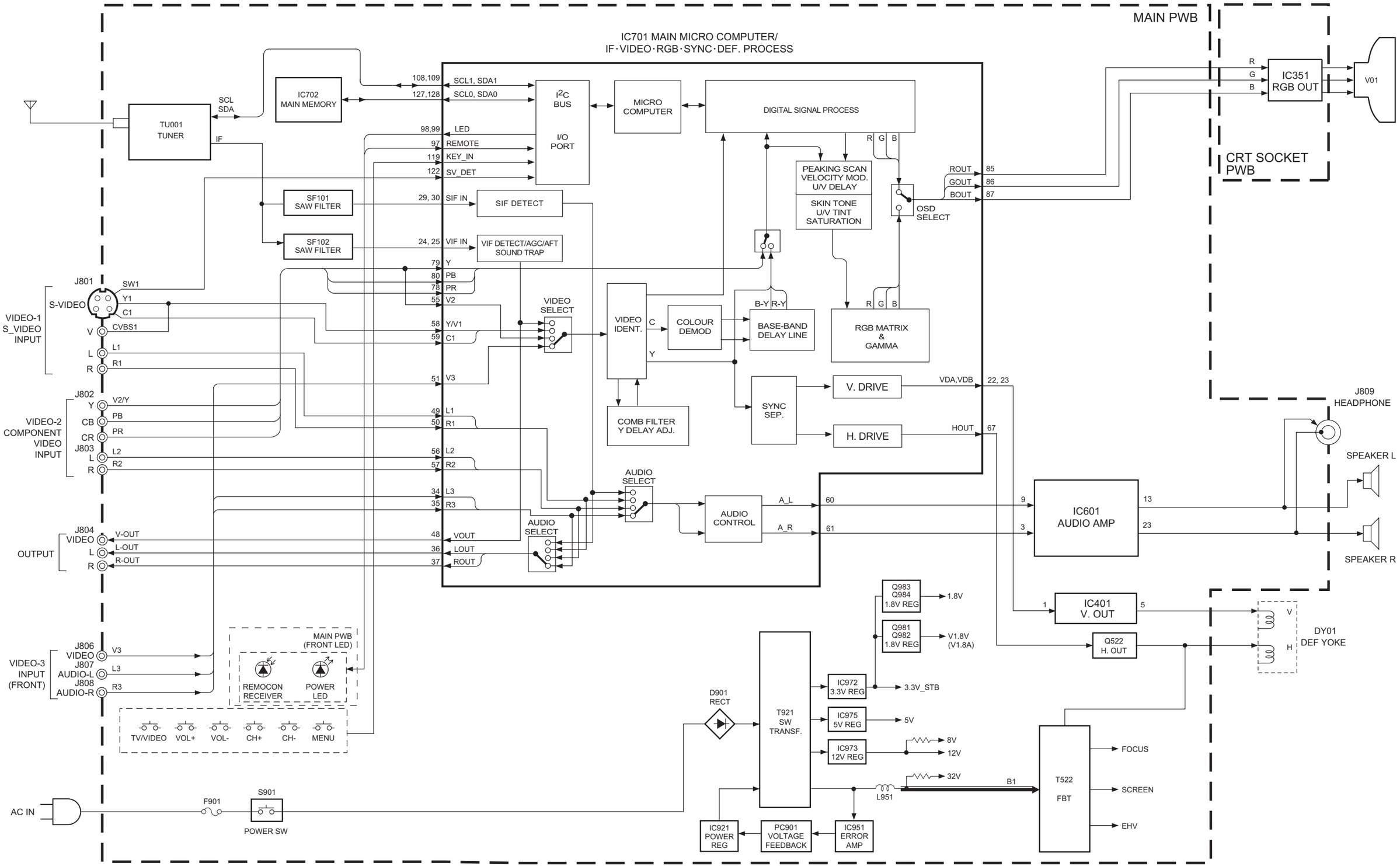
IC

BOTTOM VIEW	FRONT VIEW			TOP VIEW
				

CHIP IC

TOP VIEW		
		

BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/4), (2/4) SHEET1

ADJUSTMENT CONNECTOR

MAIN PWB ASS'Y(2/4) [FRONT LED]
SCW-1949A-H2 [AV-21BS26]
SCW-1951A-H2 [AV-21BX16/G, AV-21BX16B/G]

MAIN PWB (4/4) SHEET2
(CRT SOCKET) CN10T

VIDEO-3 INPUT

HEADPHONE JACK

SPEAKER

VIDEO-1 S-VIDEO INPUT

VIDEO-2 COMPONENT VIDEO INOUT

OPEN

OUTPUT

AUDIO AMP

MAIN PWB(3/4) SHEET2

IC701 *

MAIN MICRO COMPUTER/
TELETEXT DECODE/
IF VIDEO RGB SYNC DEF. PROCESS

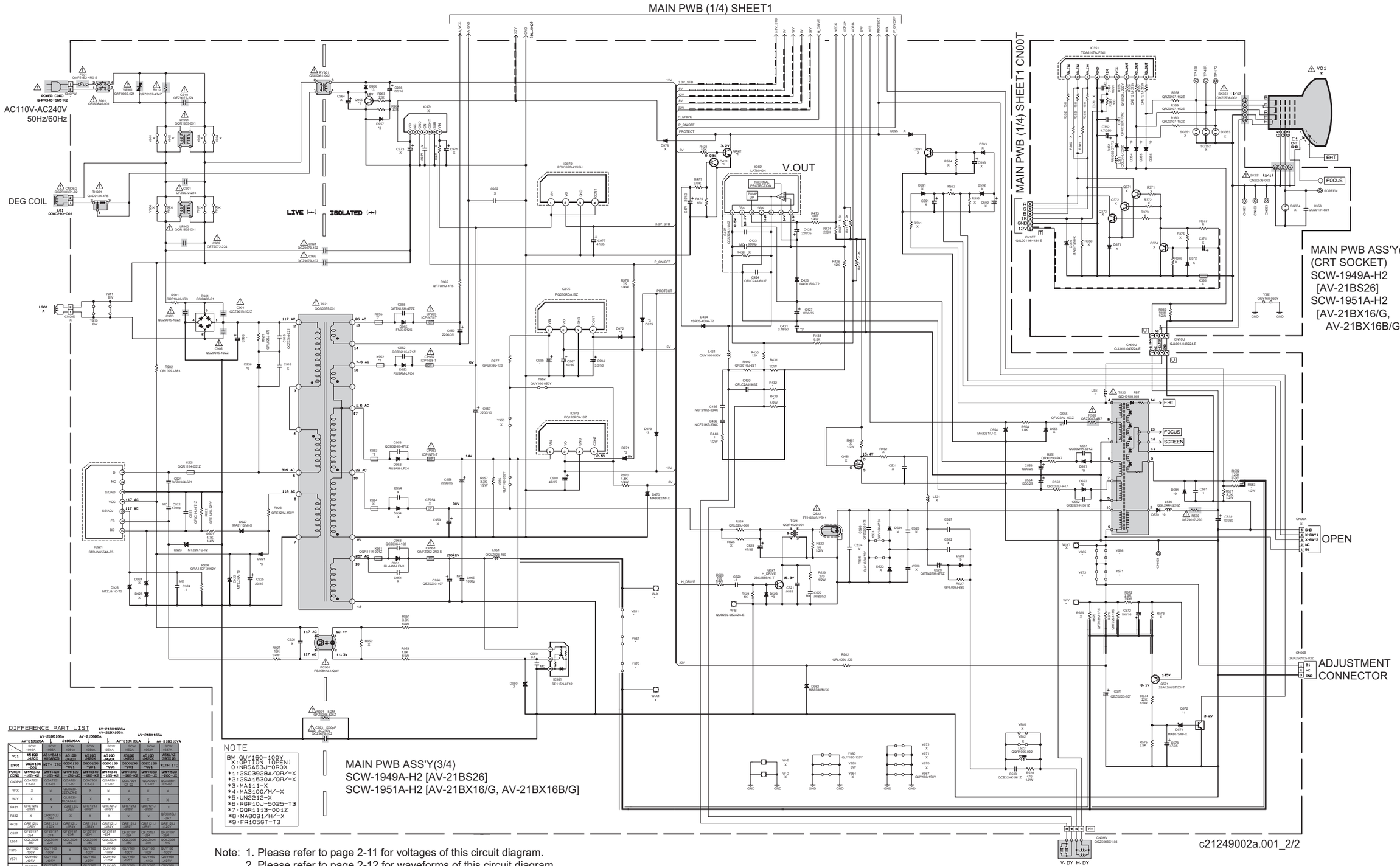
MAIN PWB ASS'Y(1/4)
SCW-1949A-H2 [AV-21BS26]
SCW-1951A-H2 [AV-21BX16/G, AV-21BX16B/G]

DIFFERENCE PART LIST

	AV-21BS26A	AV-21BX16BGA	AV-21BX16BA	AV-21BX16GA	AV-21BX16LA	AV-21BX16VA
	SCW-1949A	SCW-1966A	SCW-1934A	SCW-1951A	SCW-1962A	SCW-1933A
TU001	QAU0499-001	QAU0499-001	QAU0499-001	QAU0499-001	QAU0499-001	QAU0497-001
C606	GETN1H6M-3362	GETN1H6M-3362	GETN1H6M-3362	GETN1H6M-3362	GETN1H6M-3362	GETN1H6M-2222
SF101	QAX0872-001	QAX0872-001	QAX0872-001	QAX0883-001	QAX0883-001	QAX0872-001
SF102	QAX0731-001	QAX0731-001	QAX0731-001	QAX0908-001	QAX0908-001	QAX0731-001
C106	NDC31HJ-180X	NDC31HJ-180X	NDC31HJ-180X	NCB31HK-103X	NCB31HK-103X	NDC31HJ-180X
C341	GETN1C5M-2272	GETN1C5M-2272	GETN1C5M-2272	GETN1C5M-2272	GETN1C5M-2272	GETN1C5M-2272
IC701	Refer to NOTE	TDA13210 H/N1F01	TDA13220 H/N1F01	TDA13220 H/N1F01	TDA13282 H/N1F00	TDA13210 H/N1F00

Note: 1. Please refer to parts list for the part number of IC701 and IC702.
2. Please refer to page 2-11 for voltages of this circuit diagram.
3. Please refer to page 2-12 for waveforms of this circuit diagram.

c21249001a.001_1/2



DIFFERENCE PART LIST

	AV-21BS26A / AV-21BS26AA	AV-21BX16BA / AV-21BX16BAA	AV-21BX16GA	AV-21BX16L	AV-21BX16SA	AV-21B316VA
	SCW-1949A	SCW-1956A	SCW-1949AA	SCW-1951A	SCW-1952A	SCW-1953A	SCW-1937A	SCW-1837A
V01	A51GD-U4A04	A51HBA11-U4A04	A51GD-U4A04	A51GD-U4A04	A51GD-U4A04	A51GD-U4A04	A51GD-U4A04	A51LYZ-39R418
DY01	GQDD136-*001	WITH ITC	GQDD136-*001	GQDD136-*001	GQDD136-*001	GQDD136-*001	GQDD136-*001	WITH ITC
POWER CORD	QMPR140-*165*A2	QMPR120-*170*JC	QMPR340-*165*A2	QMPR340-*165*A2	QMPR340-*165*A2	QMPR650-*165*JC	QMPR650-*250*JC	QMPR500-*250*JC
CN0PW	QGA7501-C1-02	QGA7501-C1-02	QGA7501-C1-02	QGA7501-C1-02	QGA7501-C1-02	QGA7501-C1-02	QGA7501-C1-02	QGA8801-C1-02
W-X	X	X	QUR230-2GZA2A-E	X	X	X	X	X
W-Y	X	X	QUR230-2GZA2A-E	X	X	X	X	X
R431	QRE121J-3R9Y	X	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	X
R432	X	QRG010J-2R7	X	X	X	X	X	QRG010J-2R7
R433	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y	QRE121J-3R9Y
C527	QFZ0197-274	QFZ0197-274	QFZ0197-254	QFZ0197-254	QFZ0197-254	QFZ0197-254	QFZ0197-254	QFZ0197-254
L551	QOL2026-380	QOL2026-380	QOL2026-220	QOL2026-380	QOL2026-380	QOL2026-380	QOL2026-380	QOL2026-410
Y570	QUY160-100Y	QUY160-100Y	X	QUY160-100Y	QUY160-100Y	QUY160-100Y	QUY160-100Y	QUY160-100Y
Y571	QUY160-125Y	QUY160-125Y	X	QUY160-125Y	QUY160-125Y	QUY160-125Y	QUY160-125Y	QUY160-125Y
Y572	QUY160-125Y	QUY160-125Y	X	QUY160-125Y	QUY160-125Y	QUY160-125Y	QUY160-125Y	QUY160-125Y
R583	QRE121J-224Y	QRE121J-224Y	QRE121J-224Y	QRE121J-224Y	QRE121J-224Y	QRE121J-224Y	QRE121J-224Y	QRE121J-224Y
C906	QEZ0476-227	QEZ0476-227	QEZ0476-227	QEZ0633-227	QEZ0476-227	QEZ0476-227	QEZ0476-227	QEZ0633-227
Y951	QUY160-100Y	QUY160-100Y	X	QUY160-100Y	QUY160-100Y	QUY160-100Y	QUY160-100Y	QUY160-100Y
Y957	QUY160-100Y	QUY160-100Y	X	QUY160-100Y	QUY160-100Y	QUY160-100Y	QUY160-100Y	QUY160-100Y
Y958	QUY160-050Y	QUY160-050Y	X	QUY160-050Y	QUY160-050Y	QUY160-050Y	QUY160-050Y	QUY160-050Y

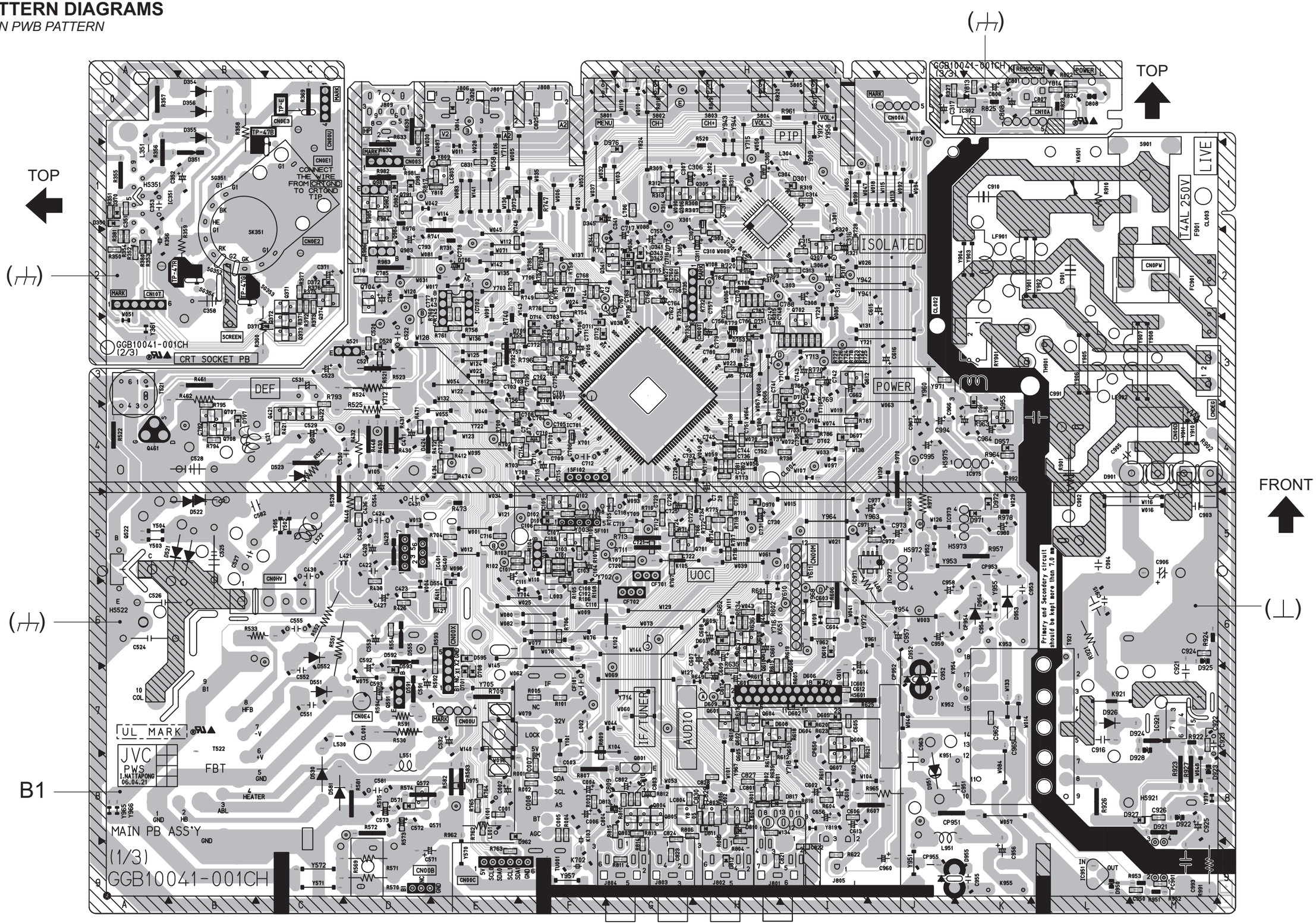
NOTE

BW:QUY160-100Y
X:OPTION (OPEN)
0:NRSA63J-0ROX
*1:2SC3928A/GR/-X
*2:2SA1530A/GR/-X
*3:MA111-X
*4:MA3100/M/-X
*5:UN2212-X
*6:RGP10J-5025-T3
*7:QGR1113-0012
*8:MA8091/H/-X
*9:FR105GT-T3

Note: 1. Please refer to page 2-11 for voltages of this circuit diagram.
2. Please refer to page 2-12 for waveforms of this circuit diagram.

PATTERN DIAGRAMS

MAIN PWB PATTERN



VOLTAGE CHARTS

<MAIN PWB>

MODE PIN NO.	DC (V)
IC401	
1	0.5
2	13.7
3	-11.7
4	-13.8
5	0.2
6	13.9
7	0.4
IC601	
1	0
2	NC
3	0
4	NC
5	25.9
6	NC
7	0
8	NC
9	0
10	NC
11	0.5
12	NC
13	12.9
14	NC
15	0.7
16	NC
17	0
18	NC
19	27.2
20	NC
21	16.7
22	NC
23	12.8
IC701	
1	0
2	0
3	1.9
4	3.3
5	3.1
6	0
7	3.2
8	0
9	3.2
10	1.5
11	1.3
12	0
13	0.1
14	2.5
15	4.9
16	1.9
17	2.3
18	0
19	2.3
20	2.3
21	0
22	0.8
23	0.9
24	1.9
25	1.9
26	2.3
27	1.9
28	0.2
29	1.9
30	1.0
31	4.3
32	3.1
33	2.2
34	2.1
35	2.2
36	3.5
37	3.4
38	2.2
39	2.5
40	0
41	3.0
42	1.4
43	2.7
44	2.2
45	8.3
46	2.0
47	5.0
48	1.3
49	2.2
50	2.0
51	1.5
52	1.4
53	2.2
54	2.1
55	1.3
56	2.2
57	1.3
58	1.8
59	1.4
60	1.3
61	3.7
62	1.3
63	3.5
64	0.5

MODE PIN NO.	DC (V)
65	1.9
66	1.4
67	1.5
68	0.2
69	4.9
70	1.3
71	1.4
72	1.3
73	2.0
74	1.7
75	0.4
76	0
77	3.3
78	1.3
79	1.3
80	1.3
81	0
82	4.9
83	2.1
84	3.4
85	2.1
86	2.1
87	2.1
88	3.3
89	0
90	3.3
91	1.6
92	0
93	1.9
94	3.3
95	0
96	1.9
97	3.0
98	0.1
99	0.1
100	2.1
101	0
102	2.4
103	2.5
104	0
105	0.2
106	2.6
107	0
108	2.2
109	1.1
110	3.3
111	0
112	3.3
113	0
114	3.3
115	1.1
116	2.6
117	1.9
118	1.8
119	3.3
120	3.1
121	0
122	3.3
123	0.1
124	1.9
125	0
126	3.3
127	3.2
128	3.2
IC702	
1	0
2	0
3	0
4	0
5	3.2
6	3.2
7	0
8	3.3
IC921	
1	125.4
2	NC
3	0
4	19.7
5	4.0
6	1.7
7	0.3
IC951	
1	135.5
2	9.4
3	0
IC972	
1	6.4
2	3.3
3	0
4	6.4
IC973	
1	15.4
2	11.8
3	0
4	2.5

MODE PIN NO.	DC (V)
IC975	
1	8.2
2	4.8
3	0.2
4	2.5
Q101	
E	2.4
C	11.8
B	3.1
Q102	
E	0
C	0.2
B	3.1
Q103	
E	0
C	0.1
B	3.1
Q341	
E	11.8
C	1.0
B	11.8
Q421	
E	0
C	0
B	0.6
Q422	
E	1.1
C	1.3
B	0
Q521	
E	0
C	10.9
B	0
Q522	
E	0
C	122.0
B	-0.1
Q571	
E	135.4
C	0
B	135.1
Q572	
E	0
C	3.2
B	-0.7
Q601	
E	11.8
C	0.4
B	11.8
Q602	
E	0.2
C	-0.2
B	0
Q603	
E	0
C	0
B	-0.3
Q605	
E	0
C	0
B	-0.2
Q607	
E	0.1
C	0
B	0.6
Q608	
E	0
C	18.5
B	0
Q609	
E	0
C	0
B	0
Q611	
E	0
C	0
B	0
Q612	
E	0
C	5.0
B	0
Q704	
E	0
C	2.5
B	0
Q705	
S	0
D	0.2
G	1.9
Q706	
S	0
D	0
G	1.9
Q707	
E	0
C	1.2
B	0

MODE PIN NO.	DC (V)
Q708	
E	1.2
C	1.3
B	4.9
Q791	
E	0
C	2.9
B	0
Q801	
E	2.2
C	0
B	1.5
Q803	
E	0.5
C	0
B	0
Q804	
E	0
C	0
B	0.2
Q805	
E	0.2
C	0
B	0
Q955	
E	0
C	11.8
B	0
Q981	
E	2.9
C	1.9
B	2.2
Q982	
E	1.9
C	2.2
B	2.5
Q983	
E	2.9
C	1.8
B	2.2
Q984	
E	1.9
C	2.2
B	2.5
TU001	
1	4.3
2	0.5
3	0
4	2.2
5	2.2
6	4.9
7	4.9
8	0.7
9	35.1
11	0

<MAIN PWB>
(FRONT LED)

MODE PIN NO.	DC (V)
IC302	
1	2.6
2	3.3
IC801	
1	3.0
2	3.3
3	0

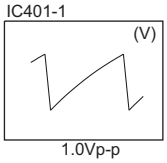
<MAIN PWB>
(CRT SOCKET)

MODE PIN NO.	DC (V)
IC351	
1	2.2
2	2.1
3	2.1
4	0
5	4.6
6	194.7
7	118.3
8	118.3
9	115.8

WAVEFORMS

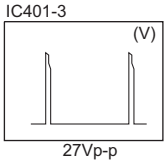
-MAIN PWB-

IC401-1



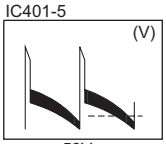
1.0Vp-p

IC401-3



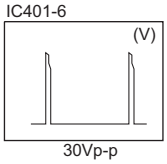
27Vp-p

IC401-5



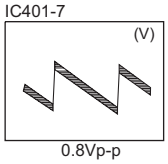
53Vp-p

IC401-6



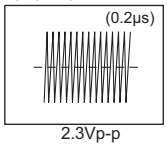
30Vp-p

IC401-7



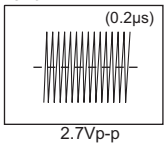
0.8Vp-p

IC701-10



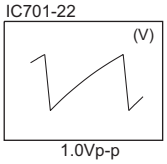
2.3Vp-p

IC701-11



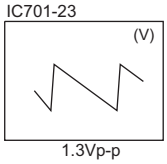
2.7Vp-p

IC701-22



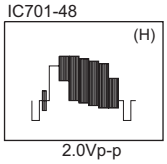
1.0Vp-p

IC701-23



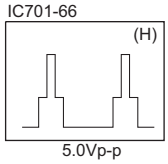
1.3Vp-p

IC701-48



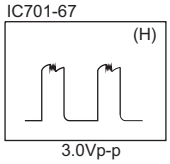
2.0Vp-p

IC701-66



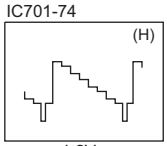
5.0Vp-p

IC701-67



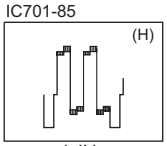
3.0Vp-p

IC701-74



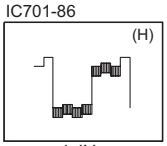
1.2Vp-p

IC701-85



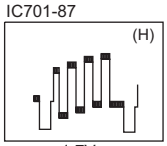
1.4Vp-p

IC701-86



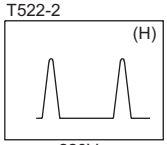
1.4Vp-p

IC701-87



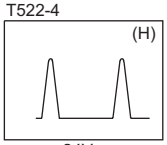
1.7Vp-p

T522-2



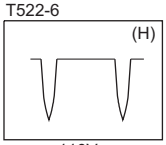
220Vp-p

T522-4



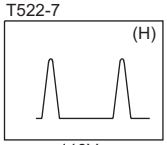
24Vp-p

T522-6



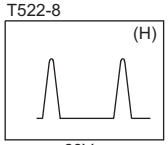
110Vp-p

T522-7



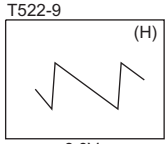
110Vp-p

T522-8



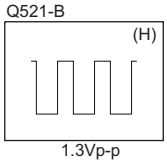
60Vp-p

T522-9



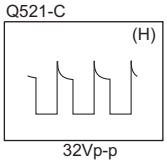
6.0Vp-p

Q521-B



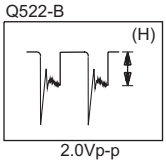
1.3Vp-p

Q521-C



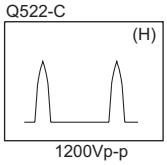
32Vp-p

Q522-B



2.0Vp-p

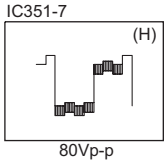
Q522-C



1200Vp-p

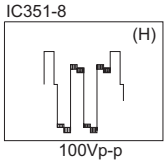
-CRT SOCKET PWB-

IC351-7



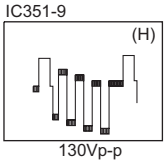
80Vp-p

IC351-8



100Vp-p

IC351-9



130Vp-p

JVC
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(No.YA443)

Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

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PACKING PARTS LIST 3-12

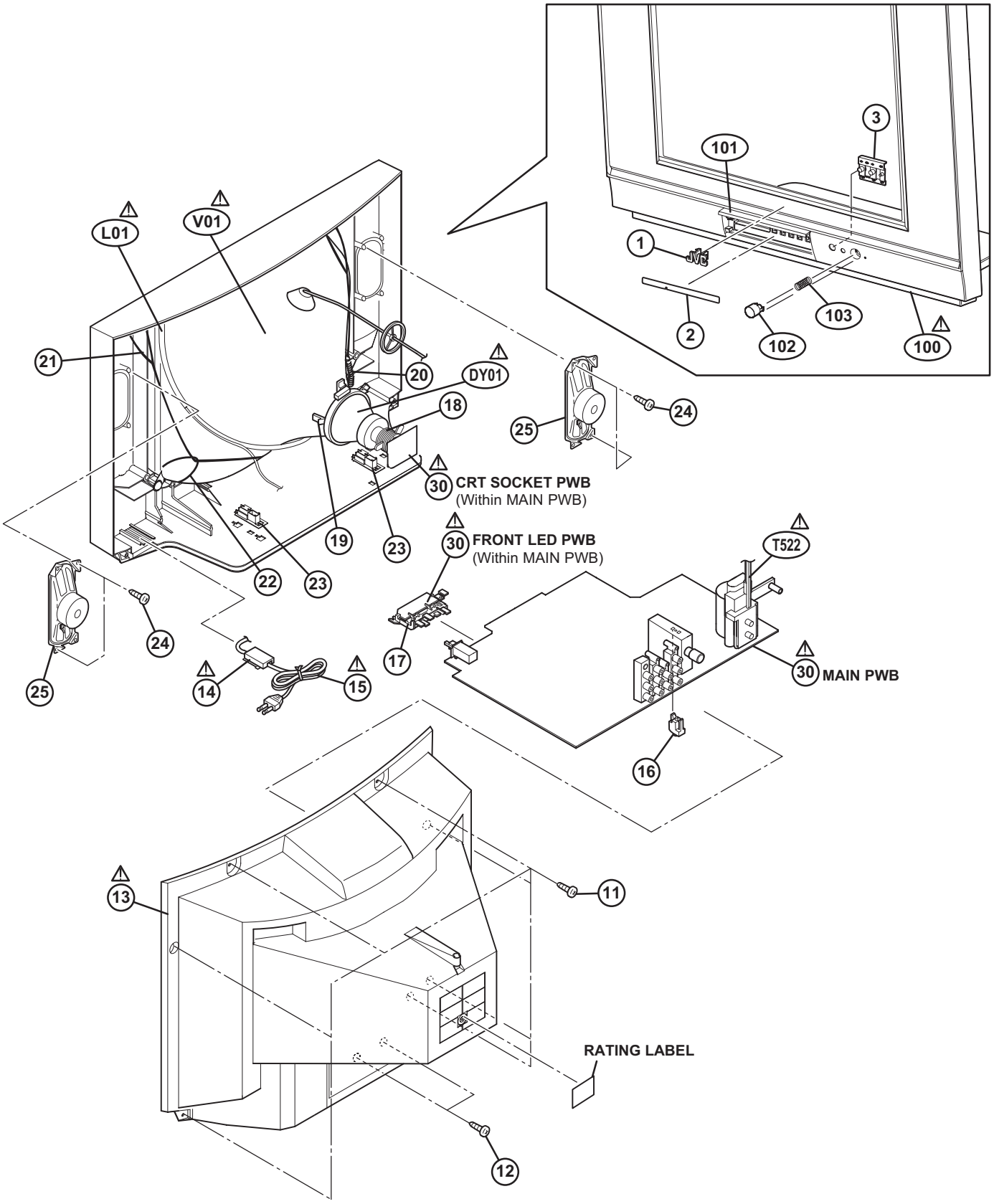
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	AV-21BS26	AV-21BX16/G	AV-21BX16B/G
MAIN P.W.B	SCW-1949A-H2	SCW-1951A-H2	←
REMOTE CONTROL UNIT	RM-C1286-1H	←	←

EXPLODED VIEW PARTS LIST -1

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	A51QDJ420X	PICTURE TUBE		
⚠	DY01	QQD0136-001	DEF YOKE		
⚠	L01	QQW0210-001	DEG COIL		
⚠	T522	QQH0189-001	FB TRANSF		
	1	GG30152-001A-H	JVC MARK		AV-21BS26,AV-21BX16G
	1	GG30152-002B-H	JVC MARK		AV-21BX16BG
	2	GG30150-001A-H	OPERATION SHEET		
	3	GG30149-001A-H	LED LENS		
	11	QYSBSFG4016ZA	TAP SCREW	M4 x 16mm(x7)	
	12	QYSBSF3010ZA	TAP SCREW	M3 x 10mm(x2)	
⚠	13	GG10421-001B-H	REAR COVER		
⚠	14	CM47005-A01-H	POWER CORD CLAMP		
⚠	15	QMPR340-165-K2	POWER CORD	1.65m BLACK	
	16	GG40055-001A-H	PB STOPPER		
	17	GG30119-001B-H	SUB PCB HOLDER		
	18	QAL0608-001	PC MAGNET		
	19	QAL0627-001	DY WEDGE	(x3)	
	20	A48457-3-H	SPRING		
	21	WJY0029-001A-E	BRAIDED ASS'Y		
	22	WJY0013-003A-E	BRAIDED ASS'Y		
	23	GG30151-001A-H	CHASSIS RAIL	(x2)	
	24	QYSBSF4012ZA	TAP SCREW	M4 x 12mm(x4)	
	25	QAS0054-001	SPEAKER	(x2) SP01,SP02	
⚠	30	SCW-1949A-H2	MAIN PWB		AV-21BS26
⚠	30	SCW-1951A-H2	MAIN PWB		AV-21BX16G,AV-21BX16BG
⚠	100	GG10419-001B-H	FRONT CABINET ASS'Y	Inc.101,102,103	AV-21BS26,AV-21BX16G
⚠	100	GG10419-004A-H	FRONT CABINET ASS'Y	Inc.101,102,103	AV-21BX16BG
	101	GG20131-001B-H	DOOR		AV-21BS26,AV-21BX16G
	101	GG20131-002A-H	DOOR		AV-21BX16BG
	102	GG30148-001B-H	POWER KNOB		AV-21BS26,AV-21BX16G
	102	GG30148-002A-H	POWER KNOB		AV-21BX16BG
	103	CM35235-003-H	SPRING		

EXPLODED VIEW -1



PRINTED WIRING BOARD PARTS LIST [AV-21BS26]

MAIN P.W. BOARD ASS'Y (SCW-1949A-H2)

⚠Ref No.	Part No.	Part Name	Description Local
IC351	TDA6107AJF/N1	IC	
IC401	LA78040N	IC	
IC601	AN5276	IC	
IC701	TDA12021-ERC3-F	IC(MCU)	(SERVICE)
IC702	ATE16-21BS26	IC	(SERVICE)
IC801	GP1UE281QKVF	IR DETECT UNIT	
IC921	STR-W6554A-F5	IC	
IC951	SE115N-LF12	IC	
IC972	PQ033RDA1SSH	IC	
IC973	PQ120RDA1SZ	IC	
IC975	PQ050RDA1SZ	IC	
Q101	2SC5397/CD/-T	TRANSISTOR	
Q102	UN2212-X	DIGI TRANSISTOR	
Q103	UN2212-X	DIGI TRANSISTOR	
Q341	2SA1530A/QR/-X	TRANSISTOR	
Q421	2SC3928A/QR/-X	TRANSISTOR	
Q422	2SC3928A/QR/-X	TRANSISTOR	
Q521	2SC2655/Y/-T	TRANSISTOR	
⚠Q522	TT2190LS-YB11	TRANSISTOR	
Q571	2SA1208/ST/Z1-T	TRANSISTOR	
Q572	2SC3928A/QR/-X	TRANSISTOR	
Q601	2SA1530A/QR/-X	TRANSISTOR	
Q602	2SA1530A/QR/-X	TRANSISTOR	
Q603	UN2226-X	DIGI TRANSISTOR	
Q605	UN2226-X	DIGI TRANSISTOR	
Q607	2SC3928A/QR/-X	TRANSISTOR	
Q608	2SC3928A/QR/-X	TRANSISTOR	
Q609	UN2226-X	DIGI TRANSISTOR	
Q611	UN2226-X	DIGI TRANSISTOR	
Q612	2SC3928A/QR/-X	TRANSISTOR	
Q704	2SC3928A/QR/-X	TRANSISTOR	
Q705	SSM3K02F-X	MOS FET	
Q706	SSM3K02F-X	MOS FET	
Q707	2SC3928A/QR/-X	TRANSISTOR	
Q708	2SA1530A/QR/-X	TRANSISTOR	
Q791	2SC3928A/QR/-X	TRANSISTOR	
Q801	KTA1267/YG/-T	TRANSISTOR	
Q803	UN2226-X	DIGI TRANSISTOR	
Q804	UN2226-X	DIGI TRANSISTOR	
Q805	2SA1530A/QR/-X	TRANSISTOR	
Q955	2SC3928A/QR/-X	TRANSISTOR	
Q981	2SA562TM/Y/-T	TRANSISTOR	
Q982	2SC3928A/QR/-X	TRANSISTOR	
Q983	2SA562TM/Y/-T	TRANSISTOR	
Q984	2SC3928A/QR/-X	TRANSISTOR	
D101	1SS356-X	SI DIODE	
D102	1SS356-X	SI DIODE	
D341	MA111-X	SI DIODE	
D342	MA111-X	SI DIODE	
D343	MA111-X	SI DIODE	
D345	MA111-X	SI DIODE	
D350	MA8075/H/-X	Z DIODE	
D351	FR105SGT-T2	SI DIODE	
D354	FR105GT-T3	SI DIODE	
D355	FR105GT-T3	SI DIODE	
D356	FR105GT-T3	SI DIODE	
D423	1N4003SG-T2	SI DIODE	
D424	1SR35-400A-T2	SI DIODE	
D520	MA111-X	SI DIODE	
D523	FR105GT-T3	SI DIODE	
D530	FR105GT-T3	SI DIODE	
D551	FR105GT-T3	SI DIODE	
D552	FR105GT-T3	SI DIODE	
D554	MA8051/L/-X	Z DIODE	
D571	MA8075/H/-X	Z DIODE	
D581	FR105GT-T3	SI DIODE	
D603	MA111-X	SI DIODE	
D607	MA111-X	SI DIODE	
D610	MA111-X	SI DIODE	
D701	MA111-X	SI DIODE	
D702	MA8091/H/-X	Z DIODE	
D703	MA8091/H/-X	Z DIODE	
D704	MA8091/H/-X	Z DIODE	
D706	MA8036-X	Z DIODE	
D707	MA111-X	SI DIODE	
D708	MA111-X	SI DIODE	
D709	MA111-X	SI DIODE	
D710	MA8091/H/-X	Z DIODE	
D711	MA111-X	SI DIODE	
D712	MA111-X	SI DIODE	
D713	MA8039/H/-X	Z DIODE	
D714	MA8030/H/-X	Z DIODE	
D715	MA111-X	SI DIODE	
D716	MA111-X	SI DIODE	
D717	MA111-X	SI DIODE	
D751	MA8091/H/-X	Z DIODE	
D753	MA8091/H/-X	Z DIODE	
D808	LH22440-T16	LED	POWER(RED)
D810	MA8091/H/-X	Z DIODE	
D811	MA8091/H/-X	Z DIODE	
D812	MA8091/H/-X	Z DIODE	
D813	MA8091/H/-X	Z DIODE	
D814	MA8091/H/-X	Z DIODE	
D817	MA8091/H/-X	Z DIODE	
D901	GSIB460-S1	BRIDGE DIODE	
D921	FR105GT-T3	SI DIODE	
D922	MTZJ36A-T2	Z DIODE	
D923	MTZJ9.1C-T2	Z DIODE	
D925	MTZJ9.1C-T2	Z DIODE	
D926	FR105GT-T3	SI DIODE	
D927	MA8110/M/-X	Z DIODE	
D951	RU4AM-LFM1	SI DIODE	
D952	RU3AM-LFC4	SI DIODE	
D953	RU3AM-LFC4	SI DIODE	
D955	FMX-G12S	SI DIODE	
D956	MA111-X	SI DIODE	
D957	MA111-X	SI DIODE	
D962	MA8330/M/-X	Z DIODE	
D970	MA8082/M/-X	Z DIODE	
D971	MA111-X	SI DIODE	
D972	MA111-X	SI DIODE	
D973	MA111-X	SI DIODE	
D975	MA111-X	SI DIODE	
D981	UDZS2.0B-X	Z DIODE	
D982	UDZS2.0B-X	Z DIODE	
⚠PC901	PS2581AL1/QW/	PHOTO COUPLER	
C001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C002	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C003	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C004	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C005	NCB31HK-222X	C CAPACITOR	2200pF 50V K
C006	QETN1HM-336Z	E CAPACITOR	33uF 50V M
C007	NDC31HJ-560X	C CAPACITOR	56pF 50V J
C008	NDC31HJ-560X	C CAPACITOR	56pF 50V J
C101	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C102	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C103	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C104	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C105	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C106	NDC31HJ-180X	C CAPACITOR	18pF 50V J
C107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C108	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C109	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C110	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C111	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C341	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C351	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C352	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M
C353	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K
C358	QCZ0364-122	C CAPACITOR	1200pF 2kV K
C422	QCS32HJ-180Z	C CAPACITOR	18pF 500V J
C423	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C424	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J
C427	QETN1VM-108Z	E CAPACITOR	1000uF 35V M
C428	QETN1VM-227Z	E CAPACITOR	220uF 35V M
C430	QFLC2AJ-563Z	M CAPACITOR	0.056uF 100V J
C431	QFVF1HJ-184Z	MF CAPACITOR	0.18uF 50V J
C435	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C436	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z
C471	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C520	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C521	QCB31HK-332Z	C CAPACITOR	3300pF 50V K
C522	QFLC1HJ-822Z	M CAPACITOR	8200pF 50V J
C523	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C526	QFZ0200-972	MPP CAPACITOR	9700pF 1.5kV H
C527	QFZ0197-254	MPP CAPACITOR	0.25uF 250V J
C529	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M
C530	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C532	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C551	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C552	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C553	QETN1EM-108Z	E CAPACITOR	1000uF 25V M

⚠Ref No.	Part No.	Part Name	Description Local
C554	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C555	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J
C571	QEZ0203-107	E CAPACITOR	100uF 160V M
C572	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C573	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C581	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C601	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C602	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C603	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C604	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C605	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C606	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C607	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C608	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C609	QETN1HM-336Z	E CAPACITOR	33uF 50V M
C610	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C613	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C615	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C616	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C656	QETN1HM-107Z	E CAPACITOR	100uF 50V M
C661	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C662	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C701	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C702	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C703	QETN1AM-477Z	E CAPACITOR	470uF 10V M
C704	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C705	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C706	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C707	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C708	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C709	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C710	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C711	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C712	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J
C713	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C714	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C715	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C716	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C717	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C718	QFZ0229-154Z	MF CAPACITOR	0.15uF 63V K
C719	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C720	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C723	NCB31CK-105X	C CAPACITOR	1uF 16V K
C724	NCB31CK-105X	C CAPACITOR	1uF 16V K
C725	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C726	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C727	NCB31HK-332X	C CAPACITOR	3300pF 50V K
C728	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C729	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C730	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C731	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C732	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C734	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C735	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C736	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C737	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C738	NCB31CK-105X	C CAPACITOR	1uF 16V K
C739	NCB31CK-105X	C CAPACITOR	1uF 16V K
C740	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C741	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C742	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C743	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C744	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C745	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C746	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C752	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C753	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C754	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C755	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C756	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C757	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C758	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C760	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C761	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C762	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C766	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C767	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C768	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C770	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C771	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C772	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C773	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C775	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C776	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C777	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C778	QETN1VM-476Z	E CAPACITOR	47uF 35V M

⚠Ref No.	Part No.	Part Name	Description Local
C779	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C780	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C781	NCB31CK-105X	C CAPACITOR	1uF 16V K
C782	NCB31CK-105X	C CAPACITOR	1uF 16V K
C783	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C784	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C785	NCB30JK-225X	C CAPACITOR	2.2uF 6.3V K
C786	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C787	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C788	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C790	NDC31HJ-270X	C CAPACITOR	27pF 50V J
C792	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C793	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C802	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C803	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C804	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C807	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C808	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C821	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C822	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C823	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C824	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C825	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C826	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C827	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C828	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C829	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C830	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C831	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
⚠C901	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
⚠C902	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
⚠C903	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
⚠C904	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
⚠C905	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C906	QEZ0476-227	E CAPACITOR	220uF 400V M
⚠C910	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
C915	QCZ0364-222	C CAPACITOR	2200pF 2kV K
C921	QCZ0364-561	C CAPACITOR	560pF 2kV K
C922	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C923	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J
C924	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C925	QETN1VM-226Z	E CAPACITOR	22uF 35V M
C950	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C952	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C953	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C955	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C956	QEZ0203-107	E CAPACITOR	100uF 160V M
C957	QETN1AM-228Z	E CAPACITOR	2200uF 10V M
C958	QETN1EM-228Z	E CAPACITOR	2200uF 25V M
C960	QETM1VM-228	E CAPACITOR	2200uF 35V M
C963	QCZ0364-102	C CAPACITOR	1000pF 2kV K
C965	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C966	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C967	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C977	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C980	QETN1VM-476Z	E CAPACITOR	47uF 35V M
⚠C991	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C992	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C993	QCZ9079-102	C CAPACITOR	1000pF AC250V M
C994	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M
R001	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R002	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R003	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R004	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R005	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R101	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R102	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R103	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R104	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R105	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R106	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R109	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R110	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R344	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R351	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R352	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R353	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R354	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R355	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R356	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R357	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R358	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R359	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R360	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K

⚠Ref No.	Part No.	Part Name	Description Local
R369	QRE121J-104Y	C RESISTOR	100kΩ 1/2W J
R411	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R412	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R421	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R426	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R427	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R430	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R431	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R433	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R434	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R440	QRG01GJ-221	OMF RESISTOR	220Ω 1W J
R448	QRE121J-1R0Y	C RESISTOR	1Ω 1/2W J
R471	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J
R472	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R473	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J
R474	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R520	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R521	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R522	QRE121J-560Y	C RESISTOR	56Ω 1/2W J
R523	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R524	QRL029J-560	OMF RESISTOR	56Ω 2W J
R527	QRL039J-223	OMF RESISTOR	22kΩ 3W J
R528	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
⚠R530	QRZ9017-270	FUSI RESISTOR	27Ω 1/4W J
⚠R533	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R551	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R552	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R554	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R570	QRT029J-1R5	MF RESISTOR	1.5Ω 2W J
R571	QRT029J-1R5	MF RESISTOR	1.5Ω 2W J
R572	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R574	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J
R575	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R581	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
R582	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J
R583	QRE121J-224Y	C RESISTOR	220kΩ 1/2W J
R601	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R602	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R604	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R606	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R607	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R609	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R610	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R611	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R614	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R618	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R620	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R621	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R623	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R624	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R630	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R631	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R632	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R633	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R636	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R637	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R639	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R640	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R649	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R701	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R704	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R705	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
R706	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R707	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R708	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R709	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J
R711	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R712	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R713	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R714	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R715	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R716	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R717	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R718	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R719	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R720	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R721	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R726	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R727	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R728	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R731	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R732	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R733	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R734	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R735	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R736	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R737	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R738	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R740	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R741	QRE141J-221Y	C RESISTOR	220Ω 1/4W J
R742	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R743	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R744	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R745	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R747	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R748	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R749	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R750	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R751	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R752	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R753	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R754	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R755	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R756	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R757	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R758	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R759	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R760	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R761	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R762	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R763	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R768	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R769	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R770	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R771	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R772	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R773	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R774	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R775	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R776	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R777	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R779	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R780	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R781	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R782	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R783	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R785	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R786	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R787	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R789	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R790	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R792	QRE141J-330Y	C RESISTOR	33Ω 1/4W J
R793	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R794	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R795	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R796	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R801	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R804	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R805	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R806	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R807	QRE121J-101Y	C RESISTOR	100Ω 1/2W J
R809	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R810	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R811	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R812	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R813	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R814	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R815	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R816	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R818	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R819	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R820	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R821	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R822	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R824	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R825	QRE141J-470Y	C RESISTOR	47Ω 1/4W J
R901	QRF104K-3R9	UNF WW RESISTOR	3.9Ω 10W K
R902	QRL029J-683	OMF RESISTOR	68kΩ 2W J
⚠R910	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K
R921	QRL029J-473	OMF RESISTOR	47kΩ 2W J
R922	QRE141J-221Y	C RESISTOR	220Ω 1/4W J
R923	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J
R924	QRA14CF-3902Y	CMF RESISTOR	39kΩ 1/4W F
R926	QRE121J-150Y	C RESISTOR	15Ω 1/2W J
R927	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R951	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J
R953	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J

⚠Ref No.	Part No.	Part Name	Description Local
R957	QRE121J-332Y	C RESISTOR	3.3kΩ 1/2W J
R961	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R962	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R963	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R964	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R965	QRT029J-1R5	MF RESISTOR	1.5Ω 2W J
R970	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J
R976	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R977	QRL039J-120	OMF RESISTOR	12Ω 3W J
R978	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R981	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R982	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R983	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R984	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R985	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R986	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
⚠R991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L002	QQL244J-4R7Z	PEAKING COIL	4.7uH J
L003	QQL244J-4R7Z	PEAKING COIL	4.7uH J
L101	QQL244K-1R0Z	PEAKING COIL	1uH K
L351	QQL244J-220Z	COIL	22uH J
L522	QQR1005-002	LINEARITY COIL	
L530	QQL244K-220Z	PEAKING COIL	22uH K
L551	QQLZ026-380	COIL	38uH ±7%
L703	NQR0199-004X	FERRITE BEADS	
L706	NQR0199-004X	FERRITE BEADS	
L716	NQR0199-004X	FERRITE BEADS	
L718	NQR0199-004X	FERRITE BEADS	
L951	QQLZ026-460	COIL	46uH ±7%
T521	QQR1522-001	DRIVE TRANSF	
⚠T921	QQS0375-001	SW TRANSF	
⚠CP650	ICP-N25-T	IC PROTECTOR	1.0A
⚠CP951	QMFZ052-2R0-E	FUSE	2A AC250V
⚠CP952	ICP-N38-T	IC PROTECTOR	1.5A
⚠CP953	ICP-N75-T	IC PROTECTOR	2.7A
⚠CP955	ICP-N75-T	IC PROTECTOR	2.7A
⚠F901	QMF51E2-4R0-S	FUSE	4A AC250V
J801	QNZ0454-002	PIN JACK	VIDEO1/S-VIDEO IN
J802	QNN0349-002	PIN JACK	VIDEO2/COMP IN
J803	QNN0348-001	PIN JACK	VIDEO2/COMP IN
J804	QNN0349-001	PIN JACK	VIDEO OUT
J806	QNN0281-003	PIN JACK	VIDEO3 V IN
J807	QNN0281-002	PIN JACK	VIDEO3 L IN
J808	QNN0282-001	PIN JACK	VIDEO3 R IN
J809	QNS0155-001	3.5 JACK	HEDAPHONE
K101	QQR1114-001Z	FERRITE BEADS	
K103	QQR0601-001Z	COIL	
K104	QQR1114-001Z	FERRITE BEADS	
K651	QQR1113-001Z	FERRITE BEADS	
K921	QQR1114-001Z	FERRITE BEADS	
K951	QQR1114-001Z	FERRITE BEADS	
K952	QQR1113-001Z	FERRITE BEADS	
K953	QQR1113-001Z	FERRITE BEADS	
K955	QQR1113-001Z	FERRITE BEADS	
LC801	QQR1199-002	EMI FILTER	
LC802	QQR1199-002	EMI FILTER	
LC803	QQR1199-002	EMI FILTER	
LC804	QQR1199-002	EMI FILTER	
LC805	QQR1199-002	EMI FILTER	
⚠LF901	QQR1635-001	LINE FILTER	
⚠LF902	QQR1635-001	LINE FILTER	
⚠RY901	QSK0061-002	RELAY	
S801	QSW0619-003Z	PUSH SWITCH	MENU
S802	QSW0619-003Z	PUSH SWITCH	CH-
S803	QSW0619-003Z	PUSH SWITCH	CH+
S804	QSW0619-003Z	PUSH SWITCH	VOL-
S805	QSW0619-003Z	PUSH SWITCH	VOL+
⚠S901	QSW0846-001	PUSH SWITCH	POWER
SF101	QAX0872-001	SAW FILTER	
SF102	QAX0731-001	SAW FILTER	
⚠SK351	QNZ0536-002	CRT SOCKET	
⚠TH901	QAD0134-4R5	P THERMISTOR	4.5Ω
TU001	QAU0466-001	TUNER	
⚠VA901	QAF0060-621	VARISTOR	620V
X701	QAX0799-001Z	CRYSTAL	2457600MHz
	GG30118-001A-H	LED HOLDER	

PRINTED WIRING BOARD PARTS LIST [AV-21BX16/G, AV-21BX16B/G]

MAIN P.W. BOARD ASS'Y (SCW-1951A-H2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC351	TDA6107AJF/N1	IC		
IC401	LA78040N	IC		
IC601	AN5276	IC		
IC701	TDA12021-ERA3-F	IC(MCU)	(SERVICE)	
IC702	ATE16-21BX16G	IC	(SERVICE)	
IC801	GP1UE281QKVF	IR DETECT UNIT		
IC921	STR-W6554A-F5	IC		
IC951	SE115N-LF12	IC		
IC972	PQ033RDA1SSH	IC		
IC973	PQ120RDA1SZ	IC		
IC975	PQ050RDA1SZ	IC		
Q101	2SC5397/CD/-T	TRANSISTOR		
Q102	UN2212-X	DIGI TRANSISTOR		
Q103	UN2212-X	DIGI TRANSISTOR		
Q341	2SA1530A/QR/-X	TRANSISTOR		
Q421	2SC3928A/QR/-X	TRANSISTOR		
Q422	2SC3928A/QR/-X	TRANSISTOR		
Q521	2SC2655/Y/-T	TRANSISTOR		
⚠Q522	TT2190LS-YB11	TRANSISTOR		
Q571	2SA1208/ST/Z1-T	TRANSISTOR		
Q572	2SC3928A/QR/-X	TRANSISTOR		
Q601	2SA1530A/QR/-X	TRANSISTOR		
Q602	2SA1530A/QR/-X	TRANSISTOR		
Q603	UN2226-X	DIGI TRANSISTOR		
Q605	UN2226-X	DIGI TRANSISTOR		
Q607	2SC3928A/QR/-X	TRANSISTOR		
Q608	2SC3928A/QR/-X	TRANSISTOR		
Q609	UN2226-X	DIGI TRANSISTOR		
Q611	UN2226-X	DIGI TRANSISTOR		
Q612	2SC3928A/QR/-X	TRANSISTOR		
Q704	2SC3928A/QR/-X	TRANSISTOR		
Q705	SSM3K02F-X	MOS FET		
Q706	SSM3K02F-X	MOS FET		
Q707	2SC3928A/QR/-X	TRANSISTOR		
Q708	2SA1530A/QR/-X	TRANSISTOR		
Q791	2SC3928A/QR/-X	TRANSISTOR		
Q801	KTA1267/YG/-T	TRANSISTOR		
Q803	UN2226-X	DIGI TRANSISTOR		
Q804	UN2226-X	DIGI TRANSISTOR		
Q805	2SA1530A/QR/-X	TRANSISTOR		
Q955	2SC3928A/QR/-X	TRANSISTOR		
Q981	2SA562TM/Y/-T	TRANSISTOR		
Q982	2SC3928A/QR/-X	TRANSISTOR		
Q983	2SA562TM/Y/-T	TRANSISTOR		
Q984	2SC3928A/QR/-X	TRANSISTOR		
D101	1SS356-X	SI DIODE		
D102	1SS356-X	SI DIODE		
D341	MA111-X	SI DIODE		
D342	MA111-X	SI DIODE		
D343	MA111-X	SI DIODE		
D345	MA111-X	SI DIODE		
D350	MA8075/H/-X	Z DIODE		
D351	FR105SGT-T2	SI DIODE		
D354	FR105GT-T3	SI DIODE		
D355	FR105GT-T3	SI DIODE		
D356	FR105GT-T3	SI DIODE		
D423	1N4003SG-T2	SI DIODE		
D424	1SR35-400A-T2	SI DIODE		
D520	MA111-X	SI DIODE		
D523	FR105GT-T3	SI DIODE		
D530	FR105GT-T3	SI DIODE		
D551	FR105GT-T3	SI DIODE		
D552	FR105GT-T3	SI DIODE		
D554	MA8051/L/-X	Z DIODE		
D571	MA8075/H/-X	Z DIODE		
D581	FR105GT-T3	SI DIODE		
D603	MA111-X	SI DIODE		
D607	MA111-X	SI DIODE		
D610	MA111-X	SI DIODE		
D701	MA111-X	SI DIODE		
D702	MA8091/H/-X	Z DIODE		
D703	MA8091/H/-X	Z DIODE		
D704	MA8091/H/-X	Z DIODE		
D706	MA8036-X	Z DIODE		
D707	MA111-X	SI DIODE		
D708	MA111-X	SI DIODE		
D709	MA111-X	SI DIODE		
D710	MA8091/H/-X	Z DIODE		
D711	MA111-X	SI DIODE		
D712	MA111-X	SI DIODE		
D713	MA8039/H/-X	Z DIODE		
D714	MA8030/H/-X	Z DIODE		
D715	MA111-X	SI DIODE		
D716	MA111-X	SI DIODE		
D717	MA111-X	SI DIODE		
D751	MA8091/H/-X	Z DIODE		
D753	MA8091/H/-X	Z DIODE		
D808	LH22440-T16	LED	POWER(RED)	
D810	MA8091/H/-X	Z DIODE		
D811	MA8091/H/-X	Z DIODE		
D812	MA8091/H/-X	Z DIODE		
D813	MA8091/H/-X	Z DIODE		
D814	MA8091/H/-X	Z DIODE		
D817	MA8091/H/-X	Z DIODE		
D901	GSIB460-S1	BRIDGE DIODE		
D921	FR105GT-T3	SI DIODE		
D922	MTZJ36A-T2	Z DIODE		
D923	MTZJ9.1C-T2	Z DIODE		
D925	MTZJ9.1C-T2	Z DIODE		
D926	FR105GT-T3	SI DIODE		
D927	MA8110/M/-X	Z DIODE		
D951	RU4AM-LFM1	SI DIODE		
D952	RU3AM-LFC4	SI DIODE		
D953	RU3AM-LFC4	SI DIODE		
D955	FMX-G12S	SI DIODE		
D956	MA111-X	SI DIODE		
D957	MA111-X	SI DIODE		
D962	MA8330/M/-X	Z DIODE		
D970	MA8082/M/-X	Z DIODE		
D971	MA111-X	SI DIODE		
D972	MA111-X	SI DIODE		
D973	MA111-X	SI DIODE		
D975	MA111-X	SI DIODE		
D981	UDZS2.0B-X	Z DIODE		
D982	UDZS2.0B-X	Z DIODE		
⚠PC901	PS2581AL1/QW/	PHOTO COUPLER		
C001	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C002	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C003	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C004	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C005	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C006	QETN1HM-336Z	E CAPACITOR	33uF 50V M	
C007	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C008	NDC31HJ-560X	C CAPACITOR	56pF 50V J	
C101	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C102	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C103	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C104	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C105	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C106	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C107	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C108	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C109	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C110	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C111	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C341	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C351	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C352	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M	
C353	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K	
C358	QCZ0364-122	C CAPACITOR	1200pF 2kV K	
C422	QCS32HJ-180Z	C CAPACITOR	18pF 500V J	
C423	NCB31HK-682X	C CAPACITOR	6800pF 50V K	
C424	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J	
C427	QETN1VM-108Z	E CAPACITOR	1000uF 35V M	
C428	QETN1VM-227Z	E CAPACITOR	220uF 35V M	
C430	QFLC2AJ-563Z	M CAPACITOR	0.056uF 100V J	
C431	QFVF1HJ-184Z	MF CAPACITOR	0.18uF 50V J	
C435	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z	
C436	NCF21HZ-334X	C CAPACITOR	0.33uF 50V Z	
C471	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C520	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C521	QCB31HK-332Z	C CAPACITOR	3300pF 50V K	
C522	QFLC1HJ-822Z	M CAPACITOR	8200pF 50V J	
C523	QETN1VM-476Z	E CAPACITOR	47uF 35V M	
C526	QFZ0200-972	MPP CAPACITOR	9700pF 1.5kV H	
C527	QFZ0197-254	MPP CAPACITOR	0.25uF 250V J	
C529	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M	
C530	QCB32HK-561Z	C CAPACITOR	560pF 500V K	
C532	QETN2EM-106Z	E CAPACITOR	10uF 250V M	
C551	QCB32HK-561Z	C CAPACITOR	560pF 500V K	
C552	QCB32HK-561Z	C CAPACITOR	560pF 500V K	
C553	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	

⚠Ref No.	Part No.	Part Name	Description Local
C554	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C555	QFLC2AJ-103Z	M CAPACITOR	0.01uF 100V J
C571	QEZ0203-107	E CAPACITOR	100uF 160V M
C572	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C573	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C581	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C601	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C602	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C603	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C604	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C605	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C606	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C607	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C608	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C609	QETN1HM-336Z	E CAPACITOR	33uF 50V M
C610	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C613	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C615	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C616	QETN1EM-108Z	E CAPACITOR	1000uF 25V M
C656	QETN1HM-107Z	E CAPACITOR	100uF 50V M
C661	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C662	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C701	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C702	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C703	QETN1AM-477Z	E CAPACITOR	470uF 10V M
C704	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C705	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C706	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C707	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C708	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C709	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C710	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C711	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C712	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J
C713	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C714	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C715	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C716	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C717	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C718	QFZ0229-154Z	MF CAPACITOR	0.15uF 63V K
C719	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C720	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C723	NCB31CK-105X	C CAPACITOR	1uF 16V K
C724	NCB31CK-105X	C CAPACITOR	1uF 16V K
C725	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C726	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C727	NCB31HK-332X	C CAPACITOR	3300pF 50V K
C728	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C729	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C730	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C731	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C732	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C734	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C735	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C736	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C737	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C738	NCB31CK-105X	C CAPACITOR	1uF 16V K
C739	NCB31CK-105X	C CAPACITOR	1uF 16V K
C740	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C741	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C742	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C743	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C744	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C745	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C746	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C752	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C753	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C754	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C755	QETN1CM-227Z	E CAPACITOR	220uF 16V M
C756	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C757	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C758	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C760	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C761	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C762	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C766	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C767	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C768	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C770	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C771	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C772	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C773	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C775	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C776	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C777	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C778	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C779	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C780	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C781	NCB31CK-105X	C CAPACITOR	1uF 16V K
C782	NCB31CK-105X	C CAPACITOR	1uF 16V K
C783	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C784	QETN1HM-105Z	E CAPACITOR	1uF 50V M
C785	NCB30JK-225X	C CAPACITOR	2.2uF 6.3V K
C786	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C787	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C788	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C790	NDC31HJ-270X	C CAPACITOR	27pF 50V J
C792	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C793	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C802	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C803	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C804	QETN1CM-477Z	E CAPACITOR	470uF 16V M
C807	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C808	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C821	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C822	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C823	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C824	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C825	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C826	NCB31HK-152X	C CAPACITOR	1500pF 50V K
C827	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C828	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C829	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C830	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C831	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
⚠C901	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
⚠C902	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
⚠C903	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
⚠C904	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
⚠C905	QCZ9015-102Z	C CAPACITOR	1000pF AC250V Z
C906	QEZ0476-227	E CAPACITOR	220uF 400V M
⚠C910	QFZ9072-224	MM CAPACITOR	0.22uF AC250V K
C915	QCZ0364-222	C CAPACITOR	2200pF 2kV K
C921	QCZ0364-561	C CAPACITOR	560pF 2kV K
C922	NCB31HK-472X	C CAPACITOR	4700pF 50V K
C923	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J
C924	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C925	QETN1VM-226Z	E CAPACITOR	22uF 35V M
C950	NCB31HK-104X	C CAPACITOR	0.1uF 50V K
C952	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C953	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C955	QCB32HK-471Z	C CAPACITOR	470pF 500V K
C956	QEZ0203-107	E CAPACITOR	100uF 160V M
C957	QETN1AM-228Z	E CAPACITOR	2200uF 10V M
C958	QETN1EM-228Z	E CAPACITOR	2200uF 25V M
C960	QETM1VM-228	E CAPACITOR	2200uF 35V M
C963	QCZ0364-102	C CAPACITOR	1000pF 2kV K
C965	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C966	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C967	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C977	QETN1VM-476Z	E CAPACITOR	47uF 35V M
C980	QETN1VM-476Z	E CAPACITOR	47uF 35V M
⚠C991	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C992	QCZ9079-102	C CAPACITOR	1000pF AC250V M
⚠C993	QCZ9079-102	C CAPACITOR	1000pF AC250V M
C994	QETN1HM-335Z	E CAPACITOR	3.3uF 50V M
R001	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R002	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R003	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R004	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R005	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R101	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R102	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R103	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R104	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R105	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R106	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R108	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R109	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R110	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R344	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R351	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R352	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R353	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R354	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J
R355	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R356	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R357	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R358	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R359	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K
R360	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K

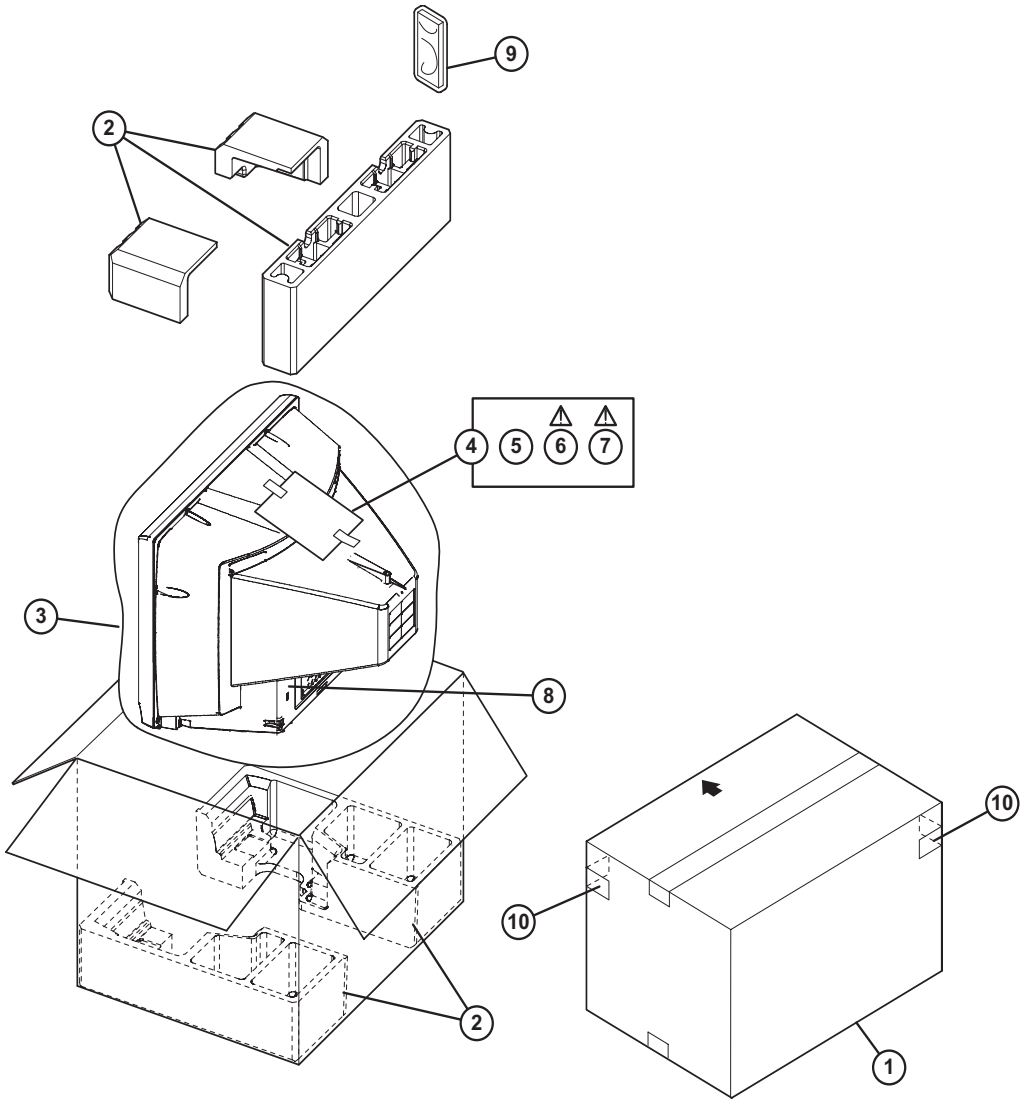
⚠Ref No.	Part No.	Part Name	Description Local
R369	QRE121J-104Y	C RESISTOR	100kΩ 1/2W J
R411	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R412	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R421	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R426	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R427	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R430	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R431	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R433	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R434	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R440	QRG01GJ-221	OMF RESISTOR	220Ω 1W J
R448	QRE121J-1R0Y	C RESISTOR	1Ω 1/2W J
R471	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J
R472	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R473	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J
R474	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
R520	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R521	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R522	QRE121J-560Y	C RESISTOR	56Ω 1/2W J
R523	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R524	QRL029J-560	OMF RESISTOR	56Ω 2W J
R527	QRL039J-223	OMF RESISTOR	22kΩ 3W J
R528	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
⚠R530	QRZ9017-270	FUSI RESISTOR	27Ω 1/4W J
⚠R533	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R551	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R552	QRX029J-R47	MF RESISTOR	0.47Ω 2W J
R554	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J
R570	QRT029J-1R5	MF RESISTOR	1.5Ω 2W J
R571	QRT029J-1R5	MF RESISTOR	1.5Ω 2W J
R572	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J
R574	QRE121J-223Y	C RESISTOR	22kΩ 1/2W J
R575	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J
R581	QRE121J-822Y	C RESISTOR	8.2kΩ 1/2W J
R582	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J
R583	QRE121J-224Y	C RESISTOR	220kΩ 1/2W J
R601	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R602	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R604	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R606	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R607	QRE121J-2R2Y	C RESISTOR	2.2Ω 1/2W J
R609	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R610	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R611	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R612	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R614	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R618	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R620	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R621	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R622	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R623	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R624	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R630	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R631	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R632	QRE121J-271Y	C RESISTOR	270Ω 1/2W J
R633	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R634	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R636	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R637	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R639	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J
R640	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R649	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R701	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R703	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R704	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R705	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
R706	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R707	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R708	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R709	QRE141J-105Y	C RESISTOR	1MΩ 1/4W J
R711	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R712	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R713	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J
R714	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R715	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R716	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R717	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R718	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R719	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R720	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J
R721	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R726	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R727	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J
R728	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R731	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R732	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R733	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R734	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R735	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R736	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R737	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R738	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R739	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R740	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R741	QRE141J-221Y	C RESISTOR	220Ω 1/4W J
R742	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R743	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R744	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R745	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R747	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R748	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R749	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R750	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R751	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R752	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R753	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R754	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R755	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R756	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R757	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R758	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R759	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R760	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R761	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R762	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R763	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R768	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R769	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R770	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R771	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R772	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R773	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R774	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R775	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R776	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R777	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R779	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R780	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R781	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R782	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R783	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R785	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R786	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R787	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R789	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R790	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R792	QRE141J-330Y	C RESISTOR	33Ω 1/4W J
R793	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R794	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R795	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R796	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R801	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R804	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R805	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R806	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R807	QRE121J-101Y	C RESISTOR	100Ω 1/2W J
R809	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R810	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R811	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R812	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R813	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R814	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R815	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R816	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R818	NRSA63J-181X	MG RESISTOR	180Ω 1/16W J
R819	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R820	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R821	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R822	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R824	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R825	QRE141J-470Y	C RESISTOR	47Ω 1/4W J
R901	QRF104K-3R9	UNF WW RESISTOR	3.9Ω 10W K
R902	QRL029J-683	OMF RESISTOR	68kΩ 2W J
⚠R910	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K
R921	QRL029J-473	OMF RESISTOR	47kΩ 2W J
R922	QRE141J-221Y	C RESISTOR	220Ω 1/4W J
R923	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J
R924	QRA14CF-3902Y	CMF RESISTOR	39kΩ 1/4W F
R926	QRE121J-150Y	C RESISTOR	15Ω 1/2W J
R927	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R951	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J
R953	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J

⚠Ref No.	Part No.	Part Name	Description Local
R957	QRE121J-332Y	C RESISTOR	3.3kΩ 1/2W J
R961	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R962	QRL029J-223	OMF RESISTOR	22kΩ 2W J
R963	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R964	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R965	QRT029J-1R5	MF RESISTOR	1.5Ω 2W J
R970	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J
R976	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R977	QRL039J-120	OMF RESISTOR	12Ω 3W J
R978	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J
R981	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R982	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R983	QRE121J-3R9Y	C RESISTOR	3.9Ω 1/2W J
R984	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R985	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R986	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
⚠R991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K
L002	QQL244J-4R7Z	PEAKING COIL	4.7uH J
L003	QQL244J-4R7Z	PEAKING COIL	4.7uH J
L101	QQL244K-1R0Z	PEAKING COIL	1uH K
L351	QQL244J-220Z	COIL	22uH J
L522	QQR1005-002	LINEARITY COIL	
L530	QQL244K-220Z	PEAKING COIL	22uH K
L551	QQLZ026-380	COIL	38uH ±7%
L703	NQR0199-004X	FERRITE BEADS	
L706	NQR0199-004X	FERRITE BEADS	
L716	NQR0199-004X	FERRITE BEADS	
L718	NQR0199-004X	FERRITE BEADS	
L951	QQLZ026-460	COIL	46uH ±7%
T521	QQR1522-001	DRIVE TRANSF	
⚠T921	QQS0375-001	SW TRANSF	
⚠CP650	ICP-N25-T	IC PROTECTOR	1.0A
⚠CP951	QMFZ052-2R0-E	FUSE	2A AC250V
⚠CP952	ICP-N38-T	IC PROTECTOR	1.5A
⚠CP953	ICP-N75-T	IC PROTECTOR	2.7A
⚠CP955	ICP-N75-T	IC PROTECTOR	2.7A
⚠F901	QMF51E2-4R0-S	FUSE	4A AC250V
J801	QNZ0454-002	PIN JACK	VIDEO1/S-VIDEO IN
J802	QNN0349-002	PIN JACK	VIDEO2/COMP IN
J803	QNN0348-001	PIN JACK	VIDEO2/COMP IN
J804	QNN0349-001	PIN JACK	VIDEO OUT
J806	QNN0281-003	PIN JACK	VIDEO3 V IN
J807	QNN0281-002	PIN JACK	VIDEO3 L IN
J808	QNN0282-001	PIN JACK	VIDEO3 R IN
J809	QNS0155-001	3.5 JACK	HEDAPHONE
K101	QQR1114-001Z	FERRITE BEADS	
K103	QQR0601-001Z	COIL	
K104	QQR1114-001Z	FERRITE BEADS	
K651	QQR1113-001Z	FERRITE BEADS	
K921	QQR1114-001Z	FERRITE BEADS	
K951	QQR1114-001Z	FERRITE BEADS	
K952	QQR1113-001Z	FERRITE BEADS	
K953	QQR1113-001Z	FERRITE BEADS	
K955	QQR1113-001Z	FERRITE BEADS	
LC801	QQR1199-002	EMI FILTER	
LC802	QQR1199-002	EMI FILTER	
LC803	QQR1199-002	EMI FILTER	
LC804	QQR1199-002	EMI FILTER	
LC805	QQR1199-002	EMI FILTER	
⚠LF901	QQR1635-001	LINE FILTER	
⚠LF902	QQR1635-001	LINE FILTER	
⚠RY901	QSK0061-002	RELAY	
S801	QSW0619-003Z	PUSH SWITCH	MENU
S802	QSW0619-003Z	PUSH SWITCH	CH-
S803	QSW0619-003Z	PUSH SWITCH	CH+
S804	QSW0619-003Z	PUSH SWITCH	VOL-
S805	QSW0619-003Z	PUSH SWITCH	VOL+
⚠S901	QSW0846-001	PUSH SWITCH	POWER
SF101	QAX0663-001	SAW FILTER	
SF102	QAX0905-001	SAW FILTER	
⚠SK351	QNZ0536-002	CRT SOCKET	
⚠TH901	QAD0134-4R5	P THERMISTOR	4.5Ω
TU001	QAU0466-001	TUNER	
⚠VA901	QAF0060-621	VARISTOR	620V
X701	QAX0799-001Z	CRYSTAL	2457600MHz
	GG30118-001A-H	LED HOLDER	

REMOTE CONTROL UNIT PARTS LIST (RM-C1286-1H)

⚠	Ref No.	Part No.	Part Name	Description	Local
		R25-8566	BATTERY COVER		

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GG10285-012A-H	PACKING CASE		AV-21BS26
	1	GG10282-044A-H	PACKING CASE		AV-21BX16G,AV-21BX16BG
	2	GG10422-001A-H	CUSHION ASS'Y	5pcs in 1set	
	3	GG30097-003A-H	POLY BAG		
	4	GG30096-001A-H	POLY BAG		
	5	----------	BATTERY	AA/R6 1.5V(x2)	
⚠	6	GGT0116-001A-H	INST BOOK		
⚠	7	GGT0117-001A-H	DIGEST MANUAL		AV-21BX16G,AV-21BX16BG
	8	GG40042-001A-H	CORD CLAMP R/C		AV-21BS26,AV-21BX16G
	9	RM-C1286-1H	REMOCON UNIT		
	10	GG30147-001B-H	CORNER LABEL	2pcs in 1set	